Modes of the Finite

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Modes of Life

Section 1 Life

Chapter 1

The living vs the inanimate

aving got through talking about being and bodies, it is now time to discuss the special type of body called the "living body." In this, we are following the Aristotelian arrangement of things, where his works on living things come after his works on inanimate nature—and this seems to be the way he considered them and is not just the way an editor compiled his notes.

But there is a difficulty with this that followers of Aristotle like St. Thomas did not fully resolve: If you consider living things a special case of bodies, then you run the risk of making a definition of "life" that applies only to bodies, even though investigation indicates that living bodies are alive to the extent to which they are less dependent on their bodiliness—which would allow one to extrapolate and say that purely spiritual beings, and certainly God, should be allowed to be called "alive" also, and perhaps in a truer sense, than living bodies.

But if, for instance, you *define* "life" as "self-initiated process" ("self-movement") in the way Aristotle did, then pure spirits, as we saw in the last chapter of the preceding part, cannot be living, because they are necessarily in absolute equilibrium, and so cannot undergo process, whether self-initiated or not. St. Thomas, who held

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that God and angels were alive, got round this by taking "process" in that extended sense which includes acts in equilibrium within it, and pointing out that spirits will their own acts and their own being, and so are "self-initiated acts" in an analogous sense.

But since God's life is supposed to be the paradigm of life, and since God is absolutely immutable (and St. Thomas held this), then it seems that the definition of life involving change is just wrong, even though you may be able to justify it.

In any case, I think that Aristotle came up with the wrong definition because he was focusing on bodily life, and defined it it terms of a property of bodily life as bodily, rather than hitting on what it was about *life* that accounted for the self-initiated processes in bodies. And if a mind of the stature of Aristotle's fell into this trap, we will have to keep our eyes open not to do so ourselves. Of course, we are forewarned, and he wasn't.

The approach here is going to be to notice the properties that living bodies have that inanimate ones don't; and since properties reveal the nature, and the nature is the structure or essence insofar as it can perform the acts in question, then the properties that living bodies have should reveal something about their structure as living; and so based on these properties, we can probably come up with a definition of life which will apply to all living beings.

We will start with the properties that all living bodies seem to possess: those of nutrition, growth, reproduction, and repair of injuries—the so-called "vegetative properties"—and go on from there to investigate consciousness, first in general, and then in its form that is shared by animals and humans, and finally in the human acts of understanding and choosing, which as far as we know are unique to humans among animals. We will see that these imply higher forms of life and higher types of existence, and these forms of life will confirm the hypothesis we will form at the vegetative level

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about what life is.

We will also continue the practice, begun in the first part, of commenting on God in the light of what we discover about the finite. Here we are going to be able to do a bit more in making affirmative statements about God, because life and consciousness belong to things insofar as they are *not* limited quantitatively, and become greater or "truer" as they get less limited; and so these are probably properties of existence insofar as it is not limited, and so apply in the fullest sense to God. When we were talking about bodies, except for things like "existence" itself or "activity," then we were talking about types of limitation, and so all that we could assert is that God did not have the characteristic in question, such as form or quantity or position, and so on.

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Chapter 2

Nutrition

et me review briefly what I said in the previous part about the characteristics of inanimate bodies as inanimate, so that we can compare the properties that living bodies have in addition to them, and thus be able to see what it is that makes them distinctive.

You will recall that, first of all, an inanimate body is in equilibrium only in its ground state, which is the state of minimum total energy (and by implication minimum energy in the unifying activity) for that form of body (or unifying energy). Secondly, the inanimate body's instability is determined by the *amount* of the excess energy it has; and this determines, of course, the purpose or ending equilibrium of the change. Thirdly, an inanimate body is always doing all the acts it can do in the condition it is in, whether this condition is instability or equilibrium. And fourthly, inanimate bodies cannot avoid absorbing energy that they are capable of absorbing, which puts them into instability; they have no means of protection from the energy falling on them.

Now then, we can state a general hypothesis, which "stands to reason," but which should be capable of being verified by our investigation:

HYPOTHESIS: A being is a higher kind of being than some other one if it can do all that that other being can do and can do

acts that the other being cannot do.

This, as I say, stands to reason, because properties reveal the nature. If A can do all that B can do, then this implies that the structures (the unifying energies) of the two beings are equal; but if B in addition to this can do acts that A cannot, then B's organization gives it "greater power" than A, and hence its essence is greater or less limited.

The reason I say that this is capable of being verified, even though we can't actually observe the unifying energy from the outside (as I mentioned in the preceding part), is that we are going to see that in the case of living bodies, the reason they can do the acts they can do has to be that their unifying activity either is less "dominated" by its quantity, or that it is essentially not quantified at all. So they are not greater because they can do more, really, but what they do indicates that in fact they are less limited than inanimate bodies.

I hasten to add that this does not necessarily mean that they are better than inanimate bodies. "Good" and "bad," and of course "better" and "worse," are terms that depend on your a priori expectations of something, as I stressed in Chapter 5 of the preceding part. A good rock is a good rock if it does what you expect a rock to do; a plant (a higher kind of being, as we will see) can be a bad plant if it grows in your garden where you don't want it and resists any attempt to kill it. This hardiness is, however, the plant's vigor, its success as a living body—as you can see from the fact that you only wish the flowers you were cultivating were that aggressively healthy. But the "goodness" of this tenacious hold on life depends on whether you want the plant to live or not.

"Lesser" and "greater" (and "higher" and "lower") are *factual* judgments, which depend on scales that you can set up that deal with things in terms of more and less; and judgments like this are

objective and imply no evaluation. Scales for these depart from a "zero," which is arbitrarily set and a given quantity can be positive or negative, depending on where you put the zero. "Worse" and "better," on the other hand, are *evaluative* judgments and imply falling short of or fitting some ideal; and so they are subjective and only deal with the facts insofar as the facts match the subjectively created ideal. With "worse" and "better" the standard or point of departure is not a zero, but a "best," the ideal itself; and it is only if your standards are not very high that things can be better than the ideal; in general, they will fall short of it.

With that out of the way, let us look at the type of activity I call "nutrition." This includes things like respiration as well as eating and drinking, and it takes different forms depending on the type of living body you are talking about. Hence, we should give it a definition:

Nutrition is the act of taking into the body energy and other bodies, breaking up those other bodies, and integrating some of their energy and parts into the body.

Plants perform this act by photosynthesis and osmosis, animals generally by breathing and eating. Fortunately, we do not have to go into detail in it, because it is a very complex kind of act, involving some really ingenious chemistry by which energy can be unlocked from the nutrients with as little expenditure of energy and as little loss of energy as possible; and in complex organisms it can even involve other organisms living symbiotically with the host and making the completion of the act possible— such as the bacteria in our intestines which help us digest our food.

The reason we don't have to consider the actual mechanism of the act in detail, while biologists do, has to do with the difference between the focus (what is traditionally called the "formal object")

of the two sciences. Biology is precisely interested in what the living being is doing as alive, and in how it maintains itself as living, while philosophy is interested in what the property in question reveals about the nature of the body in question.

Obviously, both investigations overlap. Biologists are not *solely* interested in the mechanisms by which living bodies stay alive and keep the species stable; they are also curious about what these acts say about the living body. But the focus of the science (in modern times, at least) has been on the former issue; and the result is that when biologists make statements about what these acts mean with respect to life, they are apt to leave their careful, methodical procedures and make statements that are plausible but really unsubstantiated, and in fact often false. They are being philosophers, and—not surprisingly—many of them are not very good ones.

Philosophers, of course, have the reputation of not letting little details like facts bother them; and when they pay no attention to what biologists are doing, they also make some pretty wild statements. For instance, Henri Bergson seized upon the data of evolution, and developed his whole view of the *élan vital* which was driving living things onward and ever onward toward greater complexity and higher forms of life, though the biological data indicate that the actual tendency of evolution is *conservative*, resisting change and attempting to maintain the species "as is" as much as possible in the face of a changing environment—not to mention the fact that the changes in species don't come about from a drive from within, but from *interference* with the genes from radiation and so on attacking the organism.

This view of Bergson's is actually rather widely held by biologists themselves, in spite of the fact that it goes directly counter to what the biological evidence is saying. It just goes to show that you have to be very careful in interpreting data not to let the interpretation

that appeals to you get in the way of seeing where the facts lead.

Neither science is really independent of the other; and biology is particularly necessary for philosophers as a verification of their various theories of the meaning of life. But this does not mean that philosophers have to know the details of what biologists are discovering, except insofar as these details affect what the act is actually doing.

For instance, the difference between photosynthesis and respiration as acquiring energy is not really significant philosophically; what is important is that energy is taken in and used both to manufacture the parts and create or maintain the level of energy implied in the body in question. The same goes for osmosis as opposed to digestion in taking inside the body the foreign bodies that it needs for parts and energy.

The first thing to note about this property (of nutrition) is that it is not simply a *reaction* to outside energy, but *actively seeks* that energy. This is true even in plants. It is not just that their leaves are reacting to the sunlight by performing photosynthesis; the leaves on the plant are so arranged as to take maximum advantage of the sunlight. This can be seen from the fact that plants grow in just such a way to expose as much of their leaf surface as possible to the sunlight, as anyone who has a house plant can verify as he sees how it leans toward the window.

True, this growth toward the light is by means of a mechanism by which the cells on the dark side of the plant reproduce faster than those on the light side, so that the effect of this is a leaning toward the light. But we saw in the preceding part that *any* property of a body is going to have a mechanism to do the job; but it is the body as a whole which is acting through the mechanism, and the body is not just a bunch of mechanisms that got stuck together.

I am stressing this because biologists are apt to say, once having

discovered how the plant leans toward the light, "See? It wasn't any 'desire' to be in the light at all; it's just that cells grow faster in the dark, so that the dark side of the stem grows longer. That's all it is." That's what it is; but that's not all it is. The mechanism has a function for the body as a whole, and what it does is make the body as a whole able to exist even in an environment that will destroy it unless it gets closer to the light.

The same is true of osmosis. It involves a semi-permeable membrane, which takes in fluids (with their nutrient chemicals) depending on the difference in fluid pressure outside and inside the root of the plant. This "happens" to prevent the plant from being overwhelmed with nutrients it can't use, and yet allows it to absorb nutrients when it needs them—and of course it can be thwarted, as plant owners also know when they overwater their plants and see them decay from too much kindness.

What I am getting at is that if we pay attention to the mechanism itself and how it works, we will see that it works mechanically, and we are apt to miss what it is doing for the organism; the mechanistic biologist's attitude is that it's the mechanism that is primary, and it happens that this leads to the survival of the organism, and so (not surprisingly) the organisms with these mechanisms survived and the other ones didn't.

But this ignores what we saw of bodies in the preceding part: that the parts are *secondary* to the whole, and that the act of the part is the act of the whole in and through the part. The mechanistic view of what an organism is doing is another version of the material fallacy we spoke of in Chapter 2 of Section 2 of the preceding part. There, we noted that the molecule behaves as a whole entirely differently from its constituent atoms, even though you might be able to tell from an electron micrograph where the atoms' nuclei are in it; and so what is important or significant is more what the unification is

than what is unified.

This is even truer here. The mechanistic view ignores the fact that the mechanism itself was *built* by the organism as a whole, that it gets repaired by the organism as a whole (by means of other mechanisms, of course), that when it malfunctions, it is often sloughed off by the organism as a whole if it is a danger to the whole, and so on. To say that all these things "just happen" to have occurred, and in each of the different kinds of living organisms, in spite of the differences in mechanisms that perform for the organisms essentially the same function, and that all of them "just happen" to cooperate so that one organism's waste is another's food and so on—this is to stretch coincidence to the point of insanity.

Faced, then, with the obvious fact that salt is not the same as sodium + chlorine and the fact that the mechanisms—all of the mechanisms—of a living body function for the maintenance of the body as a whole (which is just what you would expect if it is a body), and faced with the fact that you can't believe of yourself as a body that you are a bunch of parts that "just happen" to be connected together and are not a unit, then it seems to me that the mechanistic view of living bodies is a rather ill-thought-out view that has nothing rational to recommend it. People who hold it had better never play at craps with people they don't know, or they'll be fascinated by how often certain combinations "just happen" to turn up when their opponent has the dice.

But then what is nutrition doing for the body as a whole, and what does this say about what the body is? Let us look at the mature organism as our model; growth only adds a complication.

Nutrition, first of all, is an active absorption of energy, which implies two things: First, that the organism is losing energy, implying that it is unstable, and tending toward its ground state; but secondly, that the organism regains the energy it loses. In the second place,

nutrition is an *absorption of parts*, implying that the organism's parts (in its mature state) are themselves unstable and wearing out, and it is *actively rebuilding the worn-out parts*.

This second characteristic of nutrition is not perfect, especially as the organism becomes more complex. Nerves, for example, apparently cannot be regenerated (though they are built, of course, by the organism in the first place); and so when a nerve wears out, that is the end of it and its function. But there is an enormous redundancy in the nervous system, so that the loss of great numbers of nerves as time goes on is barely felt.

This lack of ability to build some parts in more complex organisms might be due to the fact that the rebuilding itself has to be done by means of a mechanism; and it is quite probable that as the organism becomes more complicated, the mechanisms necessary to rebuild all the parts would take up so much of the organism's (necessarily finite) energy and parts that it would not have enough left over to make efficient use of the parts it has. Hence, while a complex living body is in its early, purely vegetative stages, it builds far more of these parts than it is ever going to use in a normal lifetime, and then does away with the mechanism that builds the parts, relying on redundancy from then on when the nerves and so on wear out.

But to return to what nutrition is doing, the interesting thing about it is that it implies both that the organism is unstable, and that it *keeps* itself in this unstable condition. The organism—plant or animal—absorbs the energy it "needs" to keep acting as itself, and in general it absorbs neither "too much" nor "too little." That is, you breathe faster when you are exercising and losing energy quickly; you breathe slower when you are calm and not losing much energy; and hibernating animals hardly breathe at all. And you will note that if you deliberately breathe too much, or hyperventilate, you get dizzy and faint—at which point you breathe less. It is also true that

organisms in their natural condition eat the amount that keeps them "in shape," and that it is basically humans and their pets that eat so much that they are less capable of acting.

What all of this indicates is that there is a *definite energy level* which is maintained, but that this energy level is above the ground state. When there is more energy than this "optimum," which differs for each organism, even within a given species (we all know people who can eat and eat and not gain weight), the organism uses up energy it has stored and does not replenish it; when there is less, it seeks out energy.

Let us call this energy level "biological equilibrium."

Biological equilibrium is an energy level above that of ground-state equilibrium, which the living body maintains by nutrition.

It is the *maintenance* of this super-high-energy state that shows the fallacy of the mechanistic view of the living body. This biological equilibrium is precisely *unstable* from the point of view of the physics and chemistry of the body, as can be seen from the fact that all of the living acts of the body *use up* energy and dissipate it to the environment. To take but one example, the fact that we maintain our bodies at a more or less constant temperature of 98.6 degrees Fahrenheit means that our bodies are kept hotter than the surroundings, which in turn means, by the Second Law of Thermodynamics, that we are constantly giving off heat into the surroundings and growing cooler. Hence, as far as the physics of the body is concerned, our temperature is unstable; we would be like the cold-blooded animals, and have a body temperature the same as our surroundings, if we were to be in thermal equilibrium.

Yet this unstable temperature is clearly an equilibrium tempera-

ture for the organism; because when we exercise and get hotter, we sweat, and the evaporation cools the body back down to this temperature; and when we get cold, we shiver, and the exercise heats the body back up to this temperature. This temperature is clearly the *purpose* of both of these processes (in the sense described in the preceding part, as that toward which they are directed); and since it is "aimed at" whenever the body is not at this temperature, then it is obviously in some sense an equilibrium.

But biological equilibrium is different from the equilibrium in inanimate bodies, because when the body gets there it doesn't just stay there. It can't, apparently because the body *is* a body, and as such has as its "bodily" equilibrium its minimum amount of energy; hence, *as* a body, the living body is unstable at its biological equilibrium energy-level, while *as* living, it is stable at that amount of energy.

If living bodies were a bunch of mechanisms that "just happened" to be connected together, then where did this new equilibrium come from? Any mechanism tends of itself in no direction but toward its ground state; and this is as true of systems of many mechanisms as it is of a single mechanism. Your car does not start itself up and go looking for the gas pump, even when the fuel in the tank is low. Your computer doesn't have an "optimum" energy-level it tries to

¹True, you can make mechanisms that do this, such as the one built by Norbert Wiener in the early days of computer technology. It was a turtle that moved around the room, with a photocell that got energy from light; and the computer within it was programed to seek out light and "rest" when it found some, giving the machine the ability to "feed itself," so to speak. The trouble was that if you made the photocell bank large enough to absorb all the energy the machine needed, you made it so heavy that it used up more energy in moving around than it could absorb. In other words, the Second Law of Thermodynamics caught up with it, and it gradually lost energy and stopped moving. What I'm saying is that mechanical systems don't seem to have the ability really to restore lost energy, let alone lost parts.

keep; when its batteries run down, they run down. It may have a program that warns *you* that this is happening so that you can recharge them; but *it* doesn't care; all it's trying to do, actually, is run down.

So we can immediately draw this rather startling conclusion:

Conclusion 1: From the point of view of the physics and chemistry of the body, a living body maintains itself in an unnatural condition.

That is, the *nature* of the living body as living is to be at this high energy level of biological equilibrium—which is *unnatural* from the point of view of that same body's physics and chemistry. There is, then, in the living body a tension between its nature as alive and its nature as bodily, indicated by the pull toward its different equilibrium energy-levels at the same time.

"From the moment we are born, we are dying," some say, as if the purpose of life was death. And it is, based on the physics and chemistry of the living body. But from the moment we are conceived, we are fighting off this tendency, and striving to either reach or maintain that other energy-level, where we can perform all of our living acts; and so the purpose of the living body *as living* is not death at all: it is biological equilibrium. Organisms die because as bodies they are unstable and they cannot "close off" their energy and keep it from being lost out of the body, hard as they try to do so by the efficiency by which they acquire and keep energy.²

²In this connection, it is worth noting (as we will do later when talking about the human body as a body organized with a *spiritual*—and therefore immortal—act) that it is at least conceivable that a body might be able to lock in its energy once it reached its complete mature state, and so be alive forever even as a body. As we will

But since the living body, like all bodies, is a set of parts that are interacting with each other in a certain way, and since the parts are just mechanisms, we can draw the following conclusion:

Conclusion 2: What gives the living body its biological equilibrium is the unifying energy of the body.

We stated in the preceding part that instability is basically the discrepancy between the form of the unifying energy and its quantity; but we didn't make much of this, and spoke most often in terms of the discrepancy between the *total* energy of the body and what the equilibrium total energy is.

But here it seems that we have to "blame" precisely the *unifying* energy for the peculiar kind of energy-discrepancies that are in the living body as living, at least. The parts, as physical and chemical, can't account for the body's being unstable when it is *below* biological equilibrium, since it is only when they are actually organized into a living organism that they seek this biological equilibrium.

That is, an animal that is suffocated still has all of the parts of the body, and they are still, by and large, all functional. But it is a corpse, not a living body; and the sign that it is a corpse is, of course, that it is now decaying, or losing energy and going down toward its ground state of minimum energy. Hence, the biological equilibrium is not

see, the higher you go in the scale of life, the more the body has control over its energy level; and who is to say that such a locking in of energy is in principle impossible? It would mean that the living body could not *change* any more, of course; but that would not mean (any more than it does for inanimate bodies in equilibrium) that it would be inactive. I am not trying to say that this happens, but only to say that there is nothing in principle impossible in its happening.

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to be found in any part or even in all the parts taken together; it comes from the way the parts are interacting. When they are interacting as living, then it seeks and maintains a super-high equilibrium; when they are not, it disintegrates.

We must not, however, leap to a conclusion and say that this unifying energy is actually some kind of spirit that "gets into" the body somehow and directs it the way a pilot directs a ship. If it is a spirit, why is this biological equilibrium a *definite* amount of energy, different for each organism? A spirit has *no* amount to its activity, so why would it determine some definite energy-level for the body it is "inhabiting"—not to mention why would it bother to get into a tulip or a cockroach to live there in the first place?

Secondly, if a living body is alive because some kind of spirit has got into it, what do you do with all the organisms that reproduce by dividing? Most single-celled organisms reproduce in this way; and even with plants and some animals (like starfish), if you cut off a part, the part will grow into a whole organism and the organism will grow a new part to replace the one cut off. Does the spirit get divided?

If it does, then in these cases, the body it produces is an identical twin of the original, with the same energy level as its biological equilibrium. But in the case of sexual reproduction, the biological equilibrium is different from that of either parent. Did the two spirits mix? How could they if they are the same form of activity without any quantity at all? But then where did this new spirit come from?

No, it seems that if you want to say that because the biological equilibrium is above that of the ground state, therefore what is responsible for it is a spirit, you get into predictions that don't fit the facts of what organisms are doing. Hence, the most reasonable hypothesis is that what makes the body live is the unifying energy, which is in itself the *interaction* of the parts of the body.

With that said, however, it must be stressed that this interaction

is peculiar, because in *some* sense it goes beyond the parts that are interacting. That is, even if it "comes from them" in some sense, it is still *beyond* them, because they are essentially just chemicals, and their tendency is not to exist together at this high energy level, but to go to their ground state.

You can verify this from the fact that a heart taken out of a body can be maintained as a heart; you can keep it alive and pumping. But it does not have, like the body it came from, any active tendency to keep itself alive. As soon as you turn off the whatever is forcing it into his high-energy state, it begins to decay. And the same is true of any other part of a body. You can even keep the parts of a corpse alive artificially, so that the corpse seems to be a person in a coma; but it is just that each part is being forced into the high-energy state it would be in if it were a part of the living body, and all the parts are being forced to act as they would be if they were being integrated by the body's unifying energy. But the unifying energy isn't in fact integrating them, and as soon as the "life-support systems" in this case are turned off, the corpse shows what it really is: an inanimate body.

This is not to say that life-support systems—even many of them—can't be actually keeping a body alive, as the famous case of Karen Ann Quinlan in the 1980s demonstrates. When her body was taken off the life-support systems, it stayed alive for years, indicating that the parts *were* being held at their super-high energy level; but that the mechanisms by which the body as a whole could act in a normal human way (e.g. the brain) were so defective that the body could perform only its vegetative acts in this condition.

There is one further conclusion we can draw about biological equilibrium and nutrition:

Conclusion 3: Life is not really a constant process; once

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maturity is reached, its tendency is to stay the same (equilibrium).

It is easy to be misled dealing with life and process, because living bodies are constantly in process, since there is this tension between their equilibrium as living and their equilibrium as a body. Hence, *maintaining* biological equilibrium will *involve* processes in living bodies, because the body, as physically unstable, is always losing energy, which must be replaced; and, of course, a change in energy level of the body is a process, as we saw in the last chapter of the preceding part.

But when the organism is in its mature state (which involves most of its life in most organisms), the processes are always headed *back* to the equilibrium that was lost, whether the energy-level is above this biological equilibrium or below it; hence, while *each* of these is a process, there isn't actually any process *in the living body itself*, either as living or as a body. There is a *tendency* toward the ground-state equilibrium; but this is constantly thwarted by the living acts of nutrition and self-preservation generally; and so the saying I quoted earlier that "from our earliest moment we are dying" is not really true. There is no gradual progression toward death; there is, first of all, a gradual progress toward the mature state, and from then on a "hovering around" that state until the physical nature of the body finally becomes too much for the body as living, and *then* the dying process can be said to begin. But as long as the living nature of the body is "winning," then there is no real process toward death.

This has some rather significant implications. We have been told from the time we were young that "life is constant growth," and that we should be always headed beyond ourselves or we aren't really being true to ourselves as alive. This is simply false.

Actually, it's one of those hortatory falsehoods that wouldn't need

to be uttered if it were true. If life *were* constant growth, and constant reaching out toward greater and greater heights of being, then obviously the tendency would be there inside us, and we wouldn't need urging onward, any more than a five-year-old has to be *urged* to get bigger; he can't help it.

No, the reason people tell us that life is growth is that our tendency is to *resist* changing, even when it is "improving ourselves." Once we've reached maturity, the tendency is to "settle down," and *security* (read: "equilibrium") is the overriding concern. We may develop to "keep up with the field"; but this is like what the Red Queen said to Alice, "Here you have to run as hard as you can just to stay in the same place."

So if you are stuck in complacent mediocrity, then you are simply doing what is natural, and you don't have to feel guilty about it. True, as human beings, we can set goals for ourselves at any time—which is another way of saying that the actual energy-level (with its attendant properties) that is to be our biological equilibrium is up to our choice and isn't built into our genes (except in some respects like physical height and so on). But just because you can put yourself into a new instability and head toward a new goal doesn't mean either (a) that you should, because what is the sense of being free to set goals if you can't stop setting them? Nor does it mean (b) that it's unnatural for you to stop at some goal you feel "comfortable with," even if you're not living up to your full potential. Being able to set goals for yourself means not having to live up to your full potential if you don't want to. What else could it mean, if you think about it? If it meant anything else, then the only choice you would have would be living up to your full potential (which you discover, not choose), or being morally evil, because you would be deliberately contradicting your nature. In other words, not doing your absolute best would be to do wrong.

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But we will see more of this later, when we talk of human life. I want to mention it now, however, because it is a tendency of *all* living bodies to reach a "plateau" and then stop, and it needs stressing as much as possible, because there is such a strong urge in people to make sure that this doesn't happen with others that they are apt to assign this natural tendency to "the fact that our nature is fallen" (as indeed it is, but not for this reason) rather than that it is the nature itself.

I might remark that it sounds as if "life" is this biological equilibrium. It is, in fact; but let us look at the other distinctive properties of living bodies before we get around to defining it formally.

But before doing so, let me note something that probably belongs here in a discussion of nutrition: All organisms *rest*. Indeed, if my dog is any indication, many organisms spend most of their time resting.

But that is something rather interesting, and what it implies can be put into the following conclusion:

Conclusion 5: A living body is not always doing all that it can do at any given moment.

That is, when a living body is resting, it is *capable* of doing things that it is not at the moment doing; but there is no occasion for its doing them. My dog, for instance, wakes up as soon as she hears my wife's car coming into the driveway, and she busies herself with "barking her home," wagging her tail, and fawning on her. It is clear that this is a response to some inner necessity on her part, because other cars can pass by and not disturb her at all; so it is by no means a simple action-reaction affair, the way inanimate bodies respond in a given way to energy of a certain type.

But the point to be made here is that the energy to jump up and bark and wag the tail and so on is in her while she is sleeping, and didn't come from the energy of the sound of the car. Hence, there is stored energy which can express itself in (energy-dissipating) activity, but which is not in fact doing so while the dog is resting.

And this makes sense in terms of biological equilibrium. If the biological equilibrium is a super-high energy level, then obviously there is energy "in reserve" held in suspension, as it were, above the ground state; and this energy can be either bottled up inside the organism for times of emergency, or it can be released without any particular external cause accounting for the initiation of the change. The "causes" of beginning to act in living beings are often more "opportunities" or "excuses" than actual causes; the actual causes are inside the organism. This is especially true of humans when they choose to do something.

I mentioned in the discussion on inanimate bodies in the first part that this sort of ability *not* to do something is not possible in inanimate bodies; because they are either at their ground state and can't do any more (at the moment) than the minimum, or they are unstable with a single purpose: the ground state. Hence, they can't *spontaneously* keep energy in reserve; it can only be kept there for them by being blocked from escaping, as in batteries.

But living bodies have internally rechargeable batteries, as it were—or at least ones that they charge up by nutrition—and it seems that one of the things that they are doing while resting is recharging the batteries. But sometimes they are just "doing nothing," and not resting precisely to recoup lost energy, but are just resting.

This insight was actually what gave Aristotle his theory of "act" and "potency," as early as his student days with Plato, when he was writing the dialogue *Protrepticus*. Since he was the son of a physician, it was understandable that he would have noticed this; but in any

case, in that dialogue, he discusses in what sense we can call a sleeping animal a "seeing" thing if it isn't in fact seeing. Because, he answers, it "can" see; and this implies an ability in it that doesn't express itself in the activity: a kind of internal activity that stays inside—and thus he began his long and brilliant investigation into *energeia*, this internal activity which sometimes spills over into what I have been calling the "properties" of a substance or a body. He went on to distinguish many different senses of "being able," which need not detain us here.

But it is worth noting that the concept of *nature* is quite important in living things, because you can't necessarily tell what their nature is by just looking at them; if they are asleep, then they might look dead. It is obvious that if an organism is actually doing something, then it can do it; but it isn't clear from its not doing a given act whether it's not doing it because it can't or because it just doesn't want to or because it is resting.

But I think one implication of this should be made into a formal conclusion:

Conclusion 6: If an organism is not doing a given act, this does not necessarily say that its nature does not include the ability to do that act.

That is, the organism might simply not be expressing its nature fully. But there is more even than this. There is a sense in which blind people *cannot* see, and so you might argue that it is not their nature to see. But you must not be over-hasty about this, because blindness can be cured sometimes, and then the one who "couldn't" see turns out to be able to see. Now does this mean the *nature* changed, or does it mean that some defect in the seeing *mechanism* was fixed?

I think that we would have to say that if repairs in the mechanism by which an act is performed allow the act to be performed when before it couldn't, that the organism had the *nature* to perform that act while it couldn't, but couldn't *act* in accordance with its nature because of the defective part.

In inanimate bodies, perhaps, you could argue that an ion (an atom without some electrons) has a different nature from the atom, because the inanimate body is always doing all that it can do in the condition it is in. But since this is not true of living bodies, I think we have to put the "nature" in the *unifying energy* rather than in the parts, and say that mere defects in the parts do not necessarily imply an inability in the nature.

But it isn't quite that simple. If the unifying energy *built* the defective part (e.g. if a person is blind from birth because his eyes were constructed defectively), then there isn't *just* something wrong with the part, but there's something defective (as far as the species goes) or specially limited about the unifying energy, and so this would be something that could be attributed to the nature.

Thus, people who have congenital handicaps have *handicaps*, not diseases, and are not "unhealthy," because they can act in accordance with their genetic potential; it is just that their genetic potential is in some respects less than that of most people; their nature is more limited in these respects. But that means that their lives, considering their individual natures, are *not unnatural*, but just more than ordinarily limited in the respects in which they have a handicap.

Even here, however, it is sometimes possible to correct the handicap, which indicates once again that the unifying energy is rather remarkable. Even if it has a limitation which makes it build a defective part, it is somehow not necessarily bound by this limitation, and can at least sometimes overcome it.

It should be clear by now that once one gets into the area of

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living beings, things become even more mysterious than inanimate bodies, mysterious as they were.

Chapter 3

Growth

headed somewhere I did not mean that there is not a process *within* life; and this is our second major characteristic of living bodies: they all *grow* for at least part of their lives.

Growth is the process by which the living body goes from its initial instability as living to its mature state.

Growth does not necessarily mean "getting bigger." Many plants (such as trees) in their mature states continue to get bigger; but this is really a kind of adaptation to the seasons than a tendency toward larger size. That is, plants that do not die back to the roots every year nevertheless tend to lose their leaves; but apparently it is not possible to put forth leaves in the same place where the old ones dropped off, and therefore, new leaves and stems must be introduced. Also, when the sap drains into the roots, the sap-bearing layer of cells is no longer suited for this function, and so a new layer must be supplied. So the tree grows bigger by doing more or less the same thing we do when we replace our skin cells; the only difference is that the old cells don't disappear, but remain as a kind of skeleton supporting the new

living cells, which perforce make the whole organism bigger.

This is different from the process of growth as such, which might better be called "maturation," perhaps. In growth, the organism at the beginning *cannot perform* all the properties it can perform in its mature condition, and so it acquires the bodily parts and the requisite energy to be able to do this. As an example, the apple tree in my side yard this year for the first time was full of blossoms, although it has been alive for a number of years. Up to this year, it was an immature tree, because it couldn't reproduce; but now it can do all that an apple tree can do; it is now in biological equilibrium.

This, then, allows us to say the following:

Conclusion 7: Biological equilibrium is the condition in which all of the living acts given in the genetic potential of the organism can be performed.

I say the condition in which they *can* be performed because of what I said above dealing with rest, and also with human choice. It does not follow that if a living being can do some given act, it is doing it.

But what is this "genetic potential?" Once again we find that the body cannot do anything without a mechanism. The basic mechanism of the body is the genetic structure of the cells, which harks back to the genetic structure of the first cell it was when it began its life.

But then what is this genetic structure? I will assume that you are familiar enough with elementary biology to know that every cell has a nucleus in which there are a certain number of "chromosomes," which take color when the cell is stained, and actually consist of interlocked spirals of a very complex carbon molecule called DNA (deoxyribonucleic acid), locations on which are called "genes," and

determine (usually in clusters) characteristics the body is to have. The chromosomes with their genes are the genetic structure of the organism.

Now the "genetic potential" of the organism is the *properties* that are allowed by the bodily parts and so on that the genetic structure determines. Thus, it is within my genetic potential to walk around and breathe oxygen, while it is beyond a tree's genetic potential to move from place to place, and it can only breathe oxygen at night.

The genetic potential of an organism is individual as well as specific; it is within the genetic potential of Radu Lupu to do things to the piano that I could only dream of no matter how hard I practiced, and I can do things which are entirely beyond the retarded friend I have who lives three houses down the street.

We can leave to biologists details of which genes in combination with which other ones determine what bodily parts and so what properties; but there are some things we need to say for our purposes of finding out what the nature of the living body is.

First of all, we can say this:

Conclusion 8: The genetic structure of the body is *not* the life of the body, or its unifying energy.

The reason this must be true is that the cells of a corpse have the complete genetic structure; but the body is no longer alive. Hence, the genetic structure is merely the *basic mechanism* the unifying energy uses to construct the body.

But, like all that we have seen so far with living bodies, it is not that simple. The genetic structure seems to *precede* the unifying energy and *determine* it, even though it is not the same as that energy.

But all the genetic structure is, in the last analysis, is a pattern; the

genes of themselves don't really do anything, as can again be seen from corpses. True, there are chemical interactions that take place along the chromosomes, and these chemical reactions (which involve the formation of new chemicals by the fact that some atoms get temporarily attracted to the genetic locations—"lightly stuck," as it were—until their number is complete, whereupon they bond together and become "unglued" from the template) more or less happen automatically; but they don't seem to be going on in dead cells, nonetheless, and certainly not in any systematic way, as happens in living ones.

But I think it safe to say that the genetic structure is passive with respect to the unifying energy, not active; the unifying energy is active, but it apparently can't act without there being a limitation or curb on its activity to prevent it from riding off in all directions at once; and since it is going to be doing very complex acts, then the very complex genetic structure forms a manual of what it can do and what it can't, like those massive tomes you get when you buy a new computer program. They can't operate the program, and the program itself can't do anything; but *you* can make the program do many things within the limitations it imposes on the switches of the computer's circuitry.

This seems to be confirmed by the fact of viral infection. If "being alive" involves a biological equilibrium at higher than the body's ground state, then it does not seem as if viruses are alive; they don't do anything to maintain a high energy level, and give no evidence of nutrition, growth, reproduction, or repair of injuries as living bodies do, including such simple organisms as bacteria.

What they are is strands of DNA with a shell around them which collapses (in a mechanical sort of way) on contact with a living cell, injecting the DNA into it. The cell then takes this into its nucleus, and uses it as a template for its constructive activities; but

unfortunately what this template is the plans for is other virus particles; and so the cell turns itself into a factory for manufacturing more viruses, until it exhausts itself and bursts, releasing all of its warehouse of viruses, which then hit other cells and get injected into them.

So the virus doesn't reproduce in the body; it is reproduced by the living body; and it can't be killed either by the body (though it can be broken apart, of course, which is like killing), because, unlike bacteria, it isn't alive. The only thing the body can do to avoid destroying itself wholly is (a) recognize that some untoward activity is happening, (b) find what foreign object (the virus) is connected with it, and (c) devise some kind of chemical that will break it apart, so that it can't fool the cells' construction mechanisms any longer. When this happens, you begin to feel better.

Apparently, then, the unifying energy is in itself *beyond*, somehow, the particular body it is in, and *uses* the genetic structure of the body as determining what the limits of its activity are to be—if you will, exactly how it is to finitize itself, or be finitized.

Once again, this is not to say that the unifying energy is some sort of spirit that decides it wants to inhabit a body, and in so doing lets itself be limited by the genetic structure of the initial cell of the body. It is not *quite* to say that. There is no evidence in the lowest forms of living bodies (the non-sentient ones) that the body ever does anything that doesn't have a quantity; and in spite of the fact that you can't tell that a living body is incapable of doing something when it doesn't happen to be doing it, still, if a body—even a living body—*never* does some act, it's a pretty safe bet that it never does so because it can't.

So presumably, the unifying energy in at least the lowest forms of living bodies *is* energy and *does* have a quantity; and also presumably, this quantity is somehow *dependent* on the structure of the genetic

molecules. Indirectly, then, they determine the bodily structure, by determining what the unifying energy is limited to being able to do as it builds the body and integrates its parts once built and uses those parts to perform its properties.

To come finally to growth, then, the first thing that happens is that the fertilized cell is made *unstable* in a way determined by the genetic structure, and the act of nutrition begins. At this first moment, the living body is unstable in *both* directions: (a) downward toward its ground state and death, because already at the first moment of life, it exists at too high an energy-level for the physics and chemistry of the system; and (b) upward toward either some intermediate dormant stage or toward its biological equilibrium. So the initial living body simultaneously has too much and too little energy: too much as a body, and too little as living.

Since the living body is physically unstable all through its life, then as it heads toward biological equilibrium, it must be able to survive and fight off its counter-tendency at every stage of its growth. This means that for practical purposes, growth will be sporadic, and the organism is apt to have rather different shapes along the various stages of its development, while it erratically develops properties. Some properties (and parts, in fact) might be necessary only for certain stages of growth, and may appear only then and not earlier or later.

But the thing that is instructive for our purposes is that growth is a progress of *increase* of total energy, and is exactly the opposite of what the Second Law of Thermodynamics would lead one to expect.

Now it is true that if you take the growing organism in its environment, *that* system runs down. That is, the amount of energy in the sunlight (or air) and the food and the organism is greater than the amount of energy in the organism and its waste products; there is a loss of energy in the form of the "free energy" of heat, even

though the act of nutrition loses very little, in comparison with mechanical systems. Still, there is a net degeneration of the organism-environment system, with some energy lost out of the system as the organism nourishes itself. And this is consistent with the Second Law of Thermodynamics.

Nevertheless, it is still true that there is a net *gain* in energy for the organism itself; the net loss is on the part of the nutrients and the oxygen or energy that breaks them down. The organism itself, of course, uses up energy in the process, as you can verify if you chew on some very tough meat; but from its point of view, this loss is more than compensated for by the amount of energy released from the breakdown of the molecules of the food; so it has more energy than before it started nourishing itself.

Hence, looking at the living organism as the system in question, it runs up, not down, in growth; and this is an anomaly from the point of view of inanimate bodies and the laws of physics.

So where are we? Something in the genetic structure tells the unifying energy, "You have too few parts; you need these and these and these; and you have far too little energy; get to work and get this much"—and this puts the unifying energy into that peculiar instability of having not enough total energy, and of needing to pull it in from the environment.

One of the things that this implies is the following:

Conclusion 9: The purpose of growth (the biological equilibrium) cannot be determined by the quantity of the unifying energy.

The reason is, of course, that the quantity of the unifying energy is the energy-level it exists at; and at the beginning (in fact, at any stage right up to maturity), it doesn't have enough.

It is easy enough to think of instability as quantity-determined when the instability consists in having too much energy for the particular form of unification in question; but how could the amount determine the purpose (the future equilibrium) when there isn't that much yet? The amount, after all, is just a limit—this much and no more; and so the amount itself can't "need" more than itself.

In one sense, of course, the genetic structure determines the amount the biological equilibrium is to be (except possibly in humans, but let us table that for a while; we have troubles enough as it is). But, as I said, the genes are passive, not active, and so they can tell *what* instability there should be in the unifying energy, but they aren't the instability, and they can't really put it there either; all they are are chemicals.

Once again it sounds as if the *form* of the unifying energy is responsible for the instability itself as "less than the energy it should be"; it, as it were, while reading the plans of the genetic structure, "feels the need" to be greater than this minuscule energy level that it happens to be at at the moment, and proceeds to take steps to remedy the situation.

Hence, we can probably say this:

Conclusion 10: The control of the living body comes from the form of its unifying energy, not from the quantity of that form.

But the living body is still limited quantitatively; it is just that *which* quantity it is to have is not determined (as in inanimate bodies) by the quantity it has at the moment, but by the form as limited by the *form* of the genetic molecules. It has to be their form, not their quantity, because various living bodies of the same species exist at very different levels in their biological equilibria, but the genetic molecules which determine (indirectly) these biological equilibria

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have the same quantity, but different forms (i.e. different chemicals at the genetic locations).

So now we have the form of the unifying activity, which has a quantity because of the amount of energy available in the parts it is unifying, determining for itself the energy it is "supposed" to have (its purpose) because it is somehow forced to do so by the genetic pattern that it is reading. There seems to be a very strange kind of independence-dependence here.

And there is something even stranger in the growth of plants. The first thing that a plant's cell produces, generally speaking, is a *seed*, which is living at a very low level, barely maintaining itself, so that it can last in this state for a long time. There is no tendency here to grow into the mature plant; a seed will remain a seed until it dies. Hence, the seed is *in equilibrium* at a lower level of life than the plant it will become when water penetrates the shell; once that happens, growth toward the adult stage starts. It can no longer remain a seed, but must acquire new energy and parts or die.

But of course, the internal organization of the seed is such that a very slight disruption puts it into the instability whose purpose is the mature plant; and the kind of disruption that does this is the kind that normally occurs when the seed is in an environment such that the growing plant will have the nutrients from the earth that it needs to produce the mature plant.

It is easy to see why this occurs, because plants stay in one place, and in order to reproduce, something has to be done to get the offspring off the plant and onto the ground—and at a distance away from the parent plant, so that the two will not be competing with each other. Hence, there has to be a dormant stage where the seed can be carried even vast distances unharmed until it is in the proper place to grow into another plant.

This implies, however, that a given genetic structure can

determine entirely different forms of living bodies. The genetic structure of the initial cell obviously determined the formation of the seed, and therefore what the unifying energy was doing when it was building the seed is entirely different from what it does when it is the seed, and from what it is doing as the growing and living body afterwards (the plant).

Once the body begins growing toward its adult stage, however, we can say that the *form* of its unifying energy is the same form as that of the adult. The reason is that all during growth, it is unstable with the adult organism as its purpose; but the purpose can't (as we saw) come from the quantity of this unifying energy, nor can it really come from the genetic structure—especially since we now see that the genetic structure is has the pattern for different kinds of bodies built into it (the seed as well as the mature plant), and it of itself does not decide which one is to be the purpose. Nor can the parts of the body determine the purpose, because the immature organism does not have all the parts, or at least does not have fully developed parts, and so how could they determine what they are to be in their fully developed state? Hence, the only thing left that could be the real determining factor in the purpose toward which the organism is growing is the form of the unifying energy. So Conclusion 10 stands up to this test. But what it means for us is the following:

Conclusion 11: If an organism is growing toward its mature state, the form of its unifying energy is the same as the form it has in its mature state.

This once again shows us the scientific basis for why abortion is such a tragedy. There is no "seed" stage in human development; the embryo and fetus are by no means dormant or in equilibrium as they exist in the uterus; they are constantly growing in an unbroken (if

erratic) process right up to the adulthood of the human being, which is the only equilibrium they have. Hence, the human embryo, from the time growth starts, is a human *being*, and to kill one is not essentially different from killing an infant or killing a ten-year-old, or killing an adult.³ We do not have rights because we are *fully expressing* our genetic potential, or sleeping people would lose their rights; we have human rights because we are *organized* in the human way; and this is the human form of unifying energy. So abortion is homicide; the fact that it has a special name does not make it any less homicide, any more than the fact that infanticide has a special name makes it any less homicide.

I said in the preceding part that the notion that the fetus is a "part" of the mother won't hold water. The embryo is not even attached to the mother during the earliest stages of his life; he moves down the fallopian tube into the uterus and *then* attaches himself to the mother—taking nutrients he needs, and making the mother uncomfortable and even sick, blocking the mechanisms by which her body rejects him as a foreign object, just as a tapeworm does. No, the human embryo or fetus is a distinct organism living inside the mother; and he is a human organism. Hence, even though a given genetic structure is compatible with different kinds of bodies, this is *not* the case with the human body as it develops toward its biological equilibrium.

There is another kind of development where an organism takes on

³I realize that it can be argued that, even though the fetus is a human *being*, he is not a human *person*, and only persons have rights. Answering this will have to wait until considerably later, when we discuss what a person is, and what makes something a person. It turns out, however, that, unless you want to say that sleeping people have lost their personhood, you must logically admit that as long as something is a human being, he is a person. Whether there are persons other than human beings is a different story (there is at least one: God).

two different forms of organization: the larva and the insect, of which the most dramatic example is the caterpillar and the butterfly. The organism is alive all the time, and there is no state of suspended animation as in the seed; but it lives with two different kinds of life. At first, the organism grows into the full-sized larva, which has its own organs, its own metabolism, and so on; but it lacks sexual potency. When the larva is fully developed, then a completely different form of unifying energy takes over, and the organism goes into a state where all that it is doing is building a completely new body, with different organs and parts adapted to a different set of properties; and finally, we have the biological equilibrium of the mature insect, which now is sexually potent, but whose acts of nutrition and so on are totally different from what they were before; it drinks nectar rather than eating leaves, for instance.

As I also mentioned in the preceding part, this sort of metamorphosis does not happen in the human being, and so abortions are not justified on this ground. From the beginning, the body is building the parts that make sense for its life as an adult human being, not for its life inside the uterus; and the behavior of the fetus as he grows involves a certain amount of practice in using these organs that are intelligible only in reference to life outside the womb: breathing the amniotic fluid, swallowing, and so on.

Hence, even though there are various ways in which a single body can have different living forms of unifying energy (and so be different kinds of living body) at different stages in its life, this does not apply to the human being; the human being is a human being from the first moment the human ovum is disrupted into being unstable with the purpose of being a human adult.

But when does *this* occur? Obviously, some time between the time when the sperm touches the outer wall of the ovum and the time when the first cell division begins. The cell division is clearly the

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result of the instability; the body is now building itself into an adult. But the genetic material of the father has to get into the nucleus of the cell to disrupt it; and there is a time of some minutes between the "attack" of the sperm on the outer wall of the cell and the time when the genetic material of the sperm is actually in the nucleus; and during this time, the ovum is still probably an ovum, and not a human being, though at this time, using Aristotle's terminology, it is *potentially* human.

That is, the ovum itself (and sperm, of course) is potentially human in a remote sense, the way the seed is the potential plant. It is in equilibrium as what it is, but it can be disturbed; and if it is disturbed, what it will turn into is nothing but a human being (or a corpse, of course). I might point out that this potency is basically in the ovum, because with some organisms, such as chickens, it is possible to "fertilize" an infertile egg with a pin, such that it grows into a chicken (with, of course, half the normal number of chromosomes). The act of the pinprick disturbs the equilibrium of the egg, giving it the purpose of being a chicken, more or less in the way in which water disturbs the seed, giving it the purpose of being the mature plant (except that the seed, of course, has the full genetic structure).

But once the sperm penetrates the outer wall, but before the material is in the nucleus, the ovum is now still *potentially* human, but in a proximate sense; the Scholastics call this sense of "potentially" *virtually* human, because nothing short of violence is going to stop it from becoming human, even though it isn't human at the moment.

But when the ovum is actually disrupted and becomes unstable (once the genetic material of the father is in the nucleus and starts the action), then the organism is *actually a human being*; the only thing that can be said about it now in terms of "potency" is that *it*

is a potential adult. But so is the child; the potential adulthood of the child does not mean that it is not human, any more than the sleeping human is not human.

One final "pro-choice" ploy. It is sometimes alleged that the fact that separation of the initial cells will produce twins means that in the initial stages, the embryo is not a unit, and hence has no unifying energy, but is just an undifferentiated mass of cells. But separation and separate growth of the parts does not imply lack of unity in the organism. I mentioned earlier that fully grown organisms like starfish and most plants will grow copies of themselves if parts are taken off and given the proper nutrients; but this does not imply that the starfish is not a unit while its arm is on it. All it means is that the parts are still unified with the same form of unifying energy when they are broken off; and that the organism is simple enough (or at a simple enough stage of development) that the unifying energy can cope with this and build the whole organism using the genetic pattern in the cells.

And that these cells are behaving *together* in a systematic way cannot be doubted by anyone who watches what "they" are doing; because differentiation very quickly takes place following a definite sequence; and how could this occur if the parts were not organized systematically?

Thus, there is no evidence whatever, either metaphysical or biological, that there is any justification for killing unborn human beings.

Then where does this put us with respect to what the growing body is? The form of the unifying energy, which makes itself unstable in the "upward" direction by reading the genetic pattern, can actually arise out of material which only potentially has that form, and can be in equilibrium at a lower energy-level; and yet, it would seem, as demanding the super-high energy level of biological equilibrium, it

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is greater than that out of which it arose.

One thing does seem to be becoming clearer and clearer: living bodies are not just complicated inanimate ones.

Chapter 4

Repair

iving bodies not only have a biological equilibrium toward which they grow and which they maintain, they also take active steps to *prevent* the environment from interfering with this.

This has two aspects to it: First of all, living bodies tend to rebuild parts that have been destroyed by outside energy (or inside wear and tear, for that matter), insofar as they have the mechanisms to do so.

This is fairly straightforward, given that the unifying energy builds the body in the first place, and gives it its super-high biological equilibrium. It would not be surprising to find that one of the things done by nutrition in maintaining the equilibrium would be to keep the body's parts intact in the face of energy that would tend to break them apart or destroy them. This is all the more necessary once it is realized that the living body is very complex, and hence in itself more delicate than simple bodies need to be.

Living bodies are, of course, very tough in practice; and they are actively tough, not just passively so. Energy or foreign objects that they don't "want" entering them are attacked very aggressively, and the body is quickly brought back to where it was before, for practical purposes—though the scene of the battle might be marked with a scar.

This again shows a degree of control over itself that the inanimate body does not have; if an inanimate body is acted on by energy that

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it can absorb, it will absorb it, even if this energy will destroy it. Living bodies tend to absorb energy if they need it and reject it if they don't. And this ability to seek wanted energy and avoid it when it is unwanted becomes more pronounced the higher one goes in the scale of life. One of the main differences between plants and animals is precisely this: that animals can *sense* danger and move to avoid it, and can sense their own needs and what satisfies them, and move to acquire the proper food.

In this respect, living bodies seem to have taken the internal elasticity of inanimate bodies (which allows them to return to their ground state with only an accidental change) and raised it to a higher level; living bodies seem to be able to turn the tables on their environments, making what should be destructive useful. Oxygen, for instance, is corrosive, and destroys inanimate bodies by rust and burning; but living bodies utilize this destructive chemical precisely to stay alive, by controlling the fire and making it break down the food. The same goes, of course, for the hydrochloric acid in our stomachs.

Repair

Chapter 5

Adaptation and evolution

and this leads into the second aspect of repair, which is very interesting, and because of its mechanism has as much to do with reproduction as with the individual organism. Living bodies have defense mechanisms built into them against *possible* attacks, and also mechanisms by which they *attract* organisms which can help them perform some task that they can't do by themselves.

Thus, the rose has thorns, which make it unattractive to plant eaters like sheep; but at the same time, it has flowers with nectar to attract insects which will pollinate them.

And this is true of all organisms. Every one of them "knows," as it were, what its environment is likely to be like, and is admirably adapted to it, taking advantage of whatever can be helpful to it, and seeing to it that harm to it is reduced to a minimum.

Interestingly, the organism whose body is least well adapted to its environment is the human being; there is no fur coat to keep off the heat and the cold, no sharp teeth or claws (though we are in part carnivores), no great speed in running, a poorly developed sense of smell and hearing, and so on. All we have going for us are opposable thumbs and the ability to understand; and the latter seems to have served us very well. Some scientists have made a great deal of the opposable thumb, as if our understanding evolved somehow from it; but people who have lost their thumbs learn quickly how to do quite

well without them, and monkeys that for practical purposes have them (in addition to prehensile tails) don't seem on the road to the leap forward that we made. No, apparently with human beings, our understanding is pretty much all we need; and the human body seems, with its hair in strange places, to be constructed with a view to esthetics more than practicality. But we will say more of this later.

In any case, this adaptation of living bodies to possible environments is something that is in the genetic structure; and its presence there is "explained" in some sense by chance interference with the genes by cosmic radiation, heat, and other sorts of accidents, plus natural selection (if the mutant happens to be better adapted to its environment, then it thrives and passes on the mutated genes to its abundant offspring, while the less well adapted organisms die off).

All well and good, but (a) there has never been a laboratory case of a new species emerging, in spite of how often fruit flies reproduce. The changes reach a certain point, and then the organisms die, or they revert back to the old form. (b) Many of the organs that were supposed to have developed in this way are extremely complex (like the eye), and simply don't work at all unless everything is there and working right; and this involves not one but undoubtedly hundreds or thousands of genes. Development of an organ like an eye out of chance mutation and natural selection would involve millions and millions of minor changes giving the mutated organisms an organ that was totally useless—and why should they all be "better adapted" than those who weren't encumbered with this useless part that would only be useful (though supremely so, perhaps) a million generations down the pike? And if there are a million generations involved, this would mean that a million organisms with a useless appendage would by chance be better adapted to the environment than their predecessors.

Of course, you can take Stephen Jay Gould's view and speculate that some terribly drastic change occurred in the genes, giving the body the whole working organ all at once; and then it would be obviously better adapted and could survive. But that, of course, makes the probability against it so high that astronomical numbers are just elementary arithmetic. Further, this explanation entails some other improbabilities: First of all, we would have to add that it had to happen with *every* organ of the body, if we evolved from protozoa; and that makes the probability even more fantastically small. Probabilities do not just add up, you know: the probability of the "one" coming on top on one die is one in six (because of six sides); but the probability of two "ones" coming up on two dice is not one in twelve, but one in 6 x 6 = 36 (because there are now 36 possible combinations, only one of which is two ones).

Secondly, there is the further complication that apparently a given gene may belong to several clusters (determining different organs) at once. That is, there is not just one set of genes that determines skin color and another completely distinct set that determines hair texture, and another eye color and so on; some of the genes that are involved in skin color may be the same genes that are involved hair texture with other genes that have nothing to do with skin color. This intermixture of the genes, of course, makes forming a new organ all that less likely.

Not only that, but in the third place, these chance mutations of excessively complex organs produce organisms that all *fit together* in the ecological situation remarkably—astoundingly—well, so that the waste of one nourishes the other, the predatory tendencies of one are used by its victim, and so on. To achieve a "balanced" ecology like this is horrendously complicated, even on a very small scale, as we are discovering to our sorrow; and anything like what nature has done with such ease in every corner of the world is far, far beyond the

feeble human intellect.

No, something extremely fishy is going on here. The fossil evidence seems to indicate quite conclusively that evolution did in fact take place; the evidence of different sorts of organisms in different rock layers is if anything harder to explain on any other assumption than evolution than the difficulty of explaining evolution itself by chance mutations and natural selection.

So we have an effect. The changes in genetic structure apparently did in fact take place. But chance interference with the genes and natural selection—let us face it—simply does not work as its mechanism; it would predict that there *might* be some simple organisms, but not this tremendously intermeshed system of organisms the complexity of each of which is so great that we can't begin to understand it.

We are left with three possibilities: either (a) there is something in the organism *itself* that knows its situation somehow (How else can you put it?) and *itself interferes with the genes in a constructive way*, or (b) there is Divine Providence, or (c) there is a combination of the two. Against the first view is that Lamarck's "transmission of acquired characteristics" seems to be just as devoid of empirical verification as chance mutation and natural selection, if not more so. But perhaps it wasn't an acquired characteristic. Perhaps it is more like what Hegel called the "cleverness of the concept"—the form of the unifying energy—giving itself a mutation in a positive direction.

We have seen already that the form of the unifying energy of a living body makes the body exist at an energy level that is too high for its nature as a physical system; hence, it has control over the body, and can wrench it into a constant unnatural condition. Perhaps it is not *totally* without control over its own genetic pattern—or at least the genetic pattern of its offspring. We do know this: in some sense it can pick out what part of the genetic information it is going

to use to determine itself, as when the caterpillar develops as a caterpillar, and then shuts down those genes as operative and makes itself a butterfly.

Could it be that the living organism, faced with a challenge from the environment, could not only *read* the genetic pattern, but *write to it* as well? Not for itself, but for its offspring? When you put the analogy that way, as if the genetic pattern were a program in a computer, it doesn't sound quite so fantastic as otherwise.

But we still have to face the fact that the living being is an essentially higher kind of being than inanimate beings, because it maintains this super-high energy level. But since inanimate beings' natural tendency it to go downward to their ground state, how did the first living being(s) emerge out of them? What is less cannot of itself give rise to what is greater.

Furthermore, as we will see in subsequent chapters, when you get to conscious beings (sentient and intellectual ones) you encounter an act that in some sense (and in man in a true sense) is spiritual: without any quantity at all, and infinitely beyond the whole quantitative realm. How can this *arise* out of what is infinitely beneath it? How can the effect be *superior* to its cause? And in this case, the sperm and ovum before uniting are living a purely vegetative life, which, even if it is life, doesn't have a spiritual dimension to it.

I don't see how, then, that the *total* cause of an essentially superior effect can be what is inferior (more limited). Hence, it seems to me that we have only *part* of the cause here.

And the other part would have to be what is responsible for the living body's being the finite being which it is. After all, the problem in the living body is that its *essence* is beyond (even infinitely beyond) its constituent parts and the capacity and tendency of the bodies whose activity went into its makeup.

Thus, it seems that we are forced into the following conclusion:

Conclusion 12: God is the cause of the living being's being superior to the bodies it arose out of.

But how can God be this cause, if different causes have different effects, and God is the cause of the general fact of a body's being finite?

I think we have to say now that "God" is the *causer* of these different effects. Insofar as the fact that the living being is *less* limited than the bodies it arose out of, then the cause of its being able to be this has to be an *aspect* of the *being* that caused it to be finite in the first place. He causes it to be the finite being which it is, but does so in such a way that the finite being which it is is not totally dependent for its specification on the causes in this world.

Apparently, then, the parents (or, if you will, the sperm and the ovum) produce a body *which is capable of supporting* a unifying energy that is somehow "beyond" the quantitative limitation which it has; and at this point God limits the body with this kind of unifying energy.

This means not only that every advance to a higher stage of being (inanimate to life, vegetative to sentient life, etc.) is a miracle, but that the emergence of every single organism is one also, if by "miracle" you mean something involving the *actual intervention* of God in the act, and not simply his "cooperating" with it as "ratifying," the laws of nature by causing the finite being to be what it is, leaving its specification totally up to the this-worldly causes.

But if this occurs with each individual organism, and if evolution shows a definite progression toward these higher and more complex beings, and if this progression runs counter to what you would expect from the Second Law of Thermodynamics, then it seems that

we can draw another conclusion also:

Conclusion 13: God must in some sense *be aware* of what is happening in the world.

That is, if God did not know what was going on, how could he engage in this active intervention as occasion offered? The Enlightenment's "cosmic watchmaker" who supposedly "wound up the world" in the beginning and gave it its laws, wouldn't have to know what was going on once he gave it its initial push. But it seems that things don't work that way. If this were the way things were, then (a) the emergence of the superior out of the inferior would be inexplicable, and (b) things would have followed the Second Law of Thermodynamics and not have organized themselves into more complex bodies.

That is, when St. Paul said (In *Romans*, I), "[God's] invisible presence from the creation of the world can be seen from what he made by anyone who puts his mind to it," he was apparently right, if the reasoning above is true; but you have to "put your mind to it" very carefully to see that God's active presence in shaping the evolution of the world is really the correct explanation and not a simplistic cop-out.

But a still closer look at evolution seems to indicate that God is intervening where the worldly causes leave loopholes because of the chance operation of their laws. That is, the laws of the creatures that are evolving are left intact; but these laws involve an element of chance (which of the pair of chromosomes get passed on to the offspring, how the chromosomes get damaged by outside energy, etc.); and it is within this chance element that God apparently arranges things so that a body will be formed which can support the less limited unifying energy of the next higher level of being; and when such a body

is present, as I said, he supplies the less limited unifying energy.

This would even be true if organisms can "write to" their chromosomes and alter their genetic programs in definite ways, depending on outside challenges. The ecological cooperation would still not occur by itself on this assumption.

In this regard, the rather dismal failure of Adam Smith's "invisible hand" in economic matters is instructive. His idea was that if each person followed his self-interest, then there is an "invisible hand" that would arrange matters so that everyone's interest would be served; or in other words, if human beings behaved economically the way lesser forms of life behave ecologically, then economic cooperation would parallel ecological cooperation.

But in spite of what libertarians say, this is only true up to a point. It seems in the real world, the ones who have the greatest economic power tend to link it to the self-interest of those with political power, and the result is exploitation of the ones who have no power. And the reason here, I think, is that human beings are not blind to the consequences of their acts, as all lower forms of life are; and hence, they can foresee and choose acts that cause destruction as well as development: can enhance their own interests *consciously at the expense* of others'.

And as nineteenth-century England shows, there is nothing automatic about everyone's prospering under such a system. Hence, the ecological cooperation of nature is not the automatic result of each organism's seeking its own advantage. What reason would expect to happen would be that organisms would destroy each other

⁴I am aware that he only used this term once, and didn't make much of it, though subsequent people did. But he *did* use it.

^{5:} Adaptation and evolution

(and, of course, in the long run themselves) by seeking short-term gains at the expense of very complex long-term ones; and what happens in economies that approach the laissez-faire ideal seems to bear this out.

What this implies is that the extremely intricate cooperation of organisms, each of which is seeking its own advantage, must be brought about by God, even if the organisms do have some way of altering their offsprings' genetic structure. God, apparently in deference to the greater power human beings have over their environment, withholds his manipulation once this stage of development is reached; and so we are left with the prospect of wrecking our world if we don't take into account the environmental consequences of our actions. We have certainly taken steps in that direction.

But this allows us to draw a reasonable and very interesting conclusion about God and his world.

Conclusion 14: God's active intervention in the world respects the reality of the creatures in it.

That is, insofar as creatures have the power to do something, God does not interfere with the operations of their nature. In the world that is lower than human, he manipulates the chance element built into the laws of their nature in such a way that (a) self-centeredness is "cheated" into cooperation, and (b) the possibility for higher forms of organization emerge, at which point he supplies the body with the higher unifying activity. But when the creatures can *foresee* the consequences of his acts and choose them, then God does not cheat them into producing benefits by their destructive acts, whether these destructive acts are deliberately so, or are destructive

side-effects that weren't, but could have been, foreseen.⁵

Before we leave the subject of evolution, it would be well to debunk two myths connected with it. Evolution is *not* "open-ended," as Henri Bergson thought it was.

In the first place, the *population* of a given species rises toward a *definite equilibrium* where losses are compensated for by births, and

⁵If Christianity is true, what I just said is still the case. In one sense, God used the destructive choice of the people (Jew and Pagan—there is Pilate, after all, who could have prevented everything) to work toward the salvation of the world; but there are three observations worth making here.

In the first place, if certain passages of John's *Report* of the Good News reflect what Jesus was actually saying, it seems to have been Jesus' intention to do away with death ("Anyone who is alive and believes in me will not die ever."). This implies that if he had been officially accepted, then not only would he never have died, but neither would anyone who accepted him.

In the second place, Jesus' death did not *save* the world; what his death did was provide the *opportunity* of escaping the (eternal) consequences of our acts if we take advantage of it. The mess we have made of our lives can be undone for us, if we are willing to accept the conditions for this; but if we choose not to accept them, then our sins and their consequences remain with us. He "saved" the world in that without him it would not have this opportunity. He did not save it in the sense that those who sin are manipulated somehow into repentance. Even the "grace" by which we repent, though it comes from him, and without which we cannot repent, is a *removens prohibens* more than a bite from the Hound of Heaven. Note: it is not that we save ourselves; *He* saves us *if* we (with his help) let him.

In the third place, as our world shows, the temporal, this-worldly consequences of our acts have their natural effects, whether these are intended to ruin the world and others, or whether the destruction is an unchosen (and even unnoticed) side-effect by the perpetrator. As *Revelation* says, "If anyone is taken captive, he will go into captivity."

So the great blessing of Christianity still respects the reality of human beings; what it did is make *possible* what would have been impossible without it; and it did so because people's minds are clouded enough so that they unwittingly could get into an intolerable situation that they could not get out of by themselves.

where there are enough resources to feed the population. If a given species of animal multiplies to the extent that the animals encroach on each others' feeding areas, then hostility and tension as well as starvation bring the population down to the level at which the animals that remain have enough food to thrive.

This is true even when animals seem, when taken to a new ecology, to overrun the land, as rabbits have in Australia. There, it is just that the vegetation can support enormous numbers of *rabbits*, if not other species along with them (not to mention human-grown crops). Here we have a beautiful example of what happens, by the way, when humans try to "manage" ecologies which nature manages so well and so easily.

This limit of population, by the way, does tend to affect human beings also, but not in the same way, since we care for the weak, and don't just let nature take its course. But human beings *do* tend to have fewer children when it is reasonable to have fewer *for themselves*. One of the problems with "population control" in poor countries like India is that there is a high mortality rate, which means that if a person is to have children to take care of him in his old age, he had better have quite a few. That this makes the situation worse for the culture as a whole has understandably little motivating force for the person who is concerned about his own future. But as countries become prosperous and people are not concerned with having children to support them, children become a burden, and their numbers tend to diminish.

In any case, we can draw this conclusion:

Conclusion 15: The growth of the population of a given species tends toward an equilibrium, after which the number of members of the species in the ecological situation stabilizes.

Actually, in most ecologies, this population stabilization has taken place; the numbers of members of all the species in the ecology "hovers around" a given value.

In the second place, the *natural* tendency of genetic mutations is *conservative*, not "creative"; the organism changes only to fit into a changing environment, not because it is like Toad of Toad Hall seeking "Adventure! Change! Excitement!" To show what I am saying, imagine a perfectly stable ecological environment, in which there is only one organism capable of evolving by genetic mutations. Obviously, as the generations go on, this organism would evolve in the direction of greatest adaptation (You see, I am not denying mutation and natural selection; what I am saying is that *of themselves* they don't explain evolution as we see it); and once this point of greatest adaptation is reached, any mutation would necessarily make the organism less well adapted than its parents, and so mutants from this time on would die out, leaving the organism stable.

Once again we have a confirmation of what was said in the previous part about process: this one, like all processes, tends toward a purpose, where the process stops.

In the real world, of course, the organisms in the ecology are all changing, forcing adaptations on the part of those affected by them, and in turn causing changes in the ones doing the affecting. But this does not alter the fact that the changes tend toward *maintaining the organism* and are *responses* to (a) ill-adaptation toward the environment, or (b) a change in the environment. Hence, there is a goal for all of this, just as there is with the heavenly bodies in their movements, as we saw in the preceding part; and the goal is an environment in which all the organisms are optimally adapted to each other. If this is ever reached, then mutations would necessarily involve worse adaptation, and hence they would not survive.

Hence, we can say this:

Conclusion 16: Evolution tends toward an equilibrium of optimum mutual adaptation; and once this is reached, (if ever) evolution will stop.

All this is by way of saying that the processes of living bodies are not processes for their own sake; they are all (growth of the individual, growth of the population, and changes in species) headed toward a definite equilibrium, and from then on activity continues, but the changes cease.

Chapter 6

Reproduction

But it is time to take a closer look at what to me is the most mysterious difference between inanimate and living bodies: living bodies *reproduce*. That is, they produce bodies which have the same *form* of unifying energy but which have different biological equilibria, and so exist at different energy-levels.

Why is this mysterious? Because there is no benefit for the body in producing another body of the same type. One can argue that nutrition, growth, and repair are reasonable, because they preserve the organism; and this is just a kind of extension of the natural tendency we saw in the inanimate realm to preserve the body by returning in accidental change to the ground state if possible. But there is no gain for the parent's body or preservation of it in its offspring.

This needs a little expansion. People sometimes talk as if their children were an extension of themselves and a kind of self-preservation after they die. But this is nonsense. My son may have been *caused* by me, but he is *not* me; he is a completely different, and now independent, person, as can be seen from parents whose children are taken away and adopted when they are very young. After a few years, the parents cannot recognize the children for theirs, and relate to them exactly as they would any other person. How, then, is the child the "preservation" of the parent? And of

course if this is the case, then you are the "preservation" of your own parents, and their survival; you are not someone in your own right. Try that on for size.

And this is also verified in the realm of living bodies below humans. True, higher animals do tend to nurture their offspring for a while, as long as they need it; but once the young can do well on their own, their parents will have nothing to do with them, and regard them in fact as competitors and a threat. In lower forms of life, the parents not only have nothing to do with their offspring from the beginning, they even eat them when they encounter them. Anyone who has guppies in his aquarium can testify to this; and the practice is rather more common among living things than otherwise.

So while on the one hand there is among all living things a drive to produce offspring, there is on the other hand no very strong drive to see to it that the offspring are preserved, and a good deal of evidence that tends in the opposite direction.

What then is going on? Reproduction in itself looks as if the *form* of the unifying energy is trying to preserve itself in the face of the fact that the body it is organizing is ultimately doomed because of its counter-tendency as a body. This would give credence to the view we have been hinting at, that the form of the living body is a kind of spirit that gets into the body and directs it while being a "something" independent of it.

But at the same time, reproduction indicates that this form of existence (the form of the living body's unifying energy) apparently can't exist *without* organizing a body, or why wouldn't it just preserve itself by leaving the body and going into the land of the dead, as Plato's *Phaedo* says in part? The problem with Plato's view is, of course, that if the "soul" is once freed from its bodily encumbrance, why would it wait around to be stuck into another one—unless it was a "bad" soul, somehow? But it is difficult to see

what this could mean for a disembodied soul on Plato's view.

But if (as is most reasonable) the form of the unifying energy is a form of *energy*, even if a peculiar one, this means that its quantity is *intrinsic* to it, which implies that bodies which are of the same species but have different biological equilibria *do not have the same form* of unifying energy, any more than different forms of existence have the same existence. Just as the form of existence *is* the difference of one existence from another, so the different quantities of a given form of existence *are* the differences of these forms from each other. So "identical" forms of living bodies are not identical at all; they are *similar* (or more properly analogous, as we saw in Section 2 Chapter 7 of the first part).

So the "preservation of the form of unification" is preservation in a strange sense, since the form as such is an abstraction. It would "preserve itself" in the sense that a fire preserves itself by igniting different logs, or that light preserves itself by making different objects different colors. Still, something like this is going on, since there is an active tendency toward reproduction (leading, as I said, to the equilibrium of maintaining the population), so that it is obvious that the species is actively trying to preserve itself; but since in each case, the form of organization has a different quantity, it is only the form and not its concrete existence (which is modified by its quantity) that continues.

I suppose this implies the following:

Conclusion 17: The form of the unifying energy of a living body has a certain independence from its own quantity, as well as a certain independence from the body it is organizing.

The first clause of this is consistent with what we have seen so far of the implications of nutrition and growth: the activity of the

unifying energy is not controlled by its quantity, and in fact controls the quantity it is to have. Here, we have the additional datum that seems to indicate that the form of unification is to some extent indifferent to what quantity it is to have, because in reproduction a given form (with its own quantity) produces a body organized with a form that is limited differently in quantity. In inanimate bodies that have the same form, there is a tendency to have the same quantity also: that is, the "ground state" for each body is the same, which makes changes predictable.

The second clause is also something we saw indications of in nutrition, where the body maintains itself by rebuilding parts that don't work, using chemicals taken into the body. And, as we can see from surgery, the body will even, under certain conditions, accept parts that never belonged to any living body, as long as they do the job. Hence, what it is that makes up the body is to some extent a matter of indifference to the unifying energy, as long as there are parts that work right in the right places. Here in reproduction, we find the form of unifying energy making a different body unified in more or less the same way.

A word should be said about the implications for the difference between biology and philosophy that are contained in the phrase "preservation of the species." The biological species is not the same as the form of the unifying energy, or even the same as "a body unified with this form of unifying energy." The reason I say this is that a caterpillar and a butterfly are the same biological species, but they are organized with two different forms of unifying energy.

⁶It seems, however, that one who has had an organ transplant must take medicine to ensure that the rejection mechanism is blocked. I don't know whether and to what extent this is true in all cases, or if sometimes, the organism gets used to the foreign body and accepts it as part of itself. But the point is that, once this mechanism is blocked, the body uses the part as if it were its natural part.

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Obviously, biological species is *related* to the form of the unifying energy, in that the species is a "kind" of living body. In fact, the word "species" is the Latin translation of the Greek *eidos*, which is the Platonic-Aristotelian word I translate as "aspect" or "manifestation," but which has frequently been translated "form," and in its use by Aristotle refers pretty closely to what I have been calling the form of existence.

Notwithstanding this, the different focus of biology from that of philosophy leads to a different way of looking at bodies. Biology wants to classify bodies, and so is interested in the kind of body, and when a body is a given kind of body, not in what it is about the body that accounts for its being this kind of body. Hence, biology is interested in what observable data you can use to indicate that Body A is or is not the same kind of body as Body B. One of these criteria is that if the Body A is one and the same body as Body B, then it must be the same kind, however different it may be in appearance ("species," by the way, originally meant "appearance" in Latin). Another criterion is that if Body A can mate with Body B and produce fertile offspring, then the two must be the same kind of body; and if no offspring ever results, they must be different kinds. The case of the horse and the donkey producing a mule, which is infertile, is one of those disputed ones, but the science has said that the two parents are different species because of the infertility.⁷

The reasoning makes sense, and serves biology quite well. From our point of view that properties reveal the nature of the substance as well as that of the body, we can see, however, that the caterpillar and butterfly are not just different degrees of the same kind of

⁷All this, of course, is due to the fact that you can't observe the unifying energy from outside, as I mentioned in the previous part, and have to infer it from the object's behavior (properties).

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activity, but imply different forms of unification, even though the individual body is the same one. Hence, the caterpillar and the butterfly are one biological species, but two different kinds of bodies. Both views of the issue are legitimate; and so I will try to use the term "species" when I am speaking as the biologists do, and "form" or "kind" of body when I am speaking philosophically.

Now then, the other mysterious thing about reproduction is that of sexuality. Most cells (and even one-celled organisms) do not reproduce sexually; the cells within our body reproduce by dividing, even when they are differentiating themselves from each other, and so do simply one-celled organisms, even though they can and sometimes do reproduce sexually (I heard once that paramecia have six different sexes, which must make life interesting for them—or maybe it is why they don't use sexuality when reproducing except occasionally.)

Now I realize that sexual reproduction means that the offspring has genes from two different sources, and that this can lead to its being more adaptable to a new situation than if the parent just passed on a clone of itself. But this argument is pretty weak. Of any given pair of genes, one is dominant and one is recessive, and apparently the dominant one prevails willy-nilly. That is, the offspring cannot use this extra richness it has, because it is stuck with expressing the gene that is dominant, even if the recessive one would work better in the situation it happens to be in. This is to some extent taken care of by the chance that an organism will get two recessive genes, and then, if better adapted, have more offspring. This will increase the number of organisms with this recessive gene and hence provide more opportunities for organisms with two of them, while those with the dominant gene will gradually die off. Eventually, the recessive gene will either replace the dominant one, or it will itself become dominant.

In spite of all of this, it is hard to see how this cumbersome method of adaptation, which would take hundreds of generations to work, is more efficient at preserving the species than asexual reproduction (especially if the organism could somehow affect the genes it passes on to its offspring). After all, in sexual reproduction, the organism must meet with another of the same species but opposite in sex (except for those fortunate few that are hermaphrodites)—which is obviously a serious difficulty for plants, which can't go anywhere to find the partner. Of course, in most plants, both sexes are in the same flower, but separated, and insects do the job of uniting them. Still, if they are in the same plant, then this defeats the function of sexual reproduction I spoke of just above, because only one parent organism produces the offspring when pollen from the same plant fertilizes the flower. True, insects going from flower to flower and plant to plant carry pollen from different plants to the flower sometimes; and of course the wind carries pollen from one plant to the flowers of another, and so on. Still, most flowers of a plant the size of a tree must be fertilized by pollen from the same plant, and so the sexual reproduction of the plant works as a way of introducing variety only very rarely, relatively speaking.

It would seem to me, at least, that asexual reproduction would be much more efficient as a way of preserving the species, and adaptation to changing situations could be taken care of by chance modifications of the genes (which is the real mechanism in evolution, after all; but evolution itself, as I said, is a kind of preservation in the face of changing environments). It would certainly seem that the development of a modifiable asexual reproduction would be a simpler and more direct route to preservation of the species than this very cumbersome and roundabout way of seeking the opposite sex of the same species in order to reproduce.

What I am trying to do here is to counter the tendency to say,

"Of course sexual reproduction is better, because it is the one that happens." It does not follow that what goes on is what is the "best" (in the sense of most efficient) way of doing things. In fact, it seems pretty generally true in living bodies that there is a certain prodigality about them where things "just happen," and are neither necessary or more efficient or useful for any particular purpose. We see this in our own play, for instance, which we regard as something very desirable, even though when we are playing we are precisely *not* doing something for a purpose (that would make it work, not play), but just for its own sake. Scoring more points than your opponent is in the last analysis a way of motivating you to play well; and playing (and playing well) is what the game is about. But not only do we play, so do animals.

I think this discovery about living bodies deserves a formal conclusion:

Conclusion 18: There seems to be a certain superfluity in living bodies, which do things, not because they are necessary or particularly advantageous, but simply because they can do them.

If this is the case, then reproduction begins to make sense. It is not *necessary* that the species be preserved in the face of the death of the individual, and it is not *beneficial to the individual* that the species be preserved; but still, it is nice in the long run. Further, it is not necessary that reproduction be sexual, nor is it particular beneficial to have reproduction be sexual; but still, sex is nice, isn't it? It is also "fitting," in a way. In order to preserve the species, the individual must establish a kind of solidarity with another of the same species, neither of which benefit from the reproductive act; but they do produce another member of the species.

It is not surprising, in this connection, that sex has been thought

of as the act of *love*, which is basically an unselfish act. True, the urge, like all urges, seeks its gratification; but the urge in itself is toward an act which does not benefit the agent, but some other being. And I should say that in humans, who can consciously choose the motive for their acts, the sex act is an act of love *only* when the satisfaction of the other party and/or the desire that there be a new human whom one is willing to nurture and care for is the main goal, and the self-satisfaction is secondary to this.

Animals, by the way, do not engage in sex *for* the gratification of the urge, as if the gratification were a kind of motive. The feeling the animal gets is just the conscious epiphenomenon of the program's operation, and is not the reason why it operates. For the animal, both the reproduction and the feeling "just happen." We will see more of this later.

But the presence of superfluity in life, which becomes greater (as we will also see) the higher one goes in the scale of living bodies, indicates something with respect to evolution and God's role in it. Let us formulate this as a hypothesis rather than a conclusion, but first let us draw a conclusion about God's relation to the universe:

Conclusion 19: God creates the universe out of perfect love.

If love is an act that is beneficial to others rather than the agent, this conclusion must necessarily be true of God as creator of the universe. We saw in Conclusion 12 of Section 4 of the first part that God cannot be affected in any way by what he creates; and hence the act of creating (and the existence of the creature) does not benefit him or harm him or affect him in any way at all; he would be exactly as he is if he had not created. Hence, the act benefits *only* the creatures he creates.

But since we have seen in this part (in Conclusion 12 of this

chapter) that God knows the creatures he creates, then it is obvious that God in some sense *consciously* causes them to exist as they exist, and this must be for their sake and not for any purpose or benefit to himself. Hence, the act of creating is an act of absolute love on God's part.

With that said, then, here is the hypothesis for the universe:

Hypothesis: God, who eternally creates the world out of perfect love, has created a world that evolves. The direction of the evolution will be (a) toward a more obvious manifestation of God's love for the world, in that he leaves it on its own insofar as it is capable and gradually bestows more and more unnecessary gifts on his creatures; and (b) toward a greater and greater reflection of his love for the world by having the creatures themselves act in a way that benefits others as much as themselves.

I will try to give hints of this as the book progresses; and if I have the strength, I will also devote a section or possibly even a part (probably at the very end of all of the parts) to a kind of sketch of how I think this hypothesis is verified, from the Big Bang up until now. I have made a tentative attempt at this, and it seems to work. Evolution, as I see it, is a dialectic of love, not reason as Hegel thought. Since it is a dialectic of love, then what comes after does not, as in Hegel, follow necessarily from what precedes; but with hindsight we can see that (as *Genesis* says) it is good; it is very good. But since it is a dialectic (as it must be because any change involves instability which is the active presence of difference within the same being, working itself out to make the same different), then the process will have its dark side, which dark side will grow more prominent and more active the higher one goes on

the scale of evolution also. Satan will more and more masquerade as an angel of light.

But let us let that ride as enough for our purposes now.

Chapter 7

Life

aving, then, touched upon the various differences between living and inanimate bodies, and having drawn some conclusions from each of them, we are now, I think, in a position to define what life itself is. Life is obviously what it is about living bodies that is distinctive; and what is distinctive about them is the way they *exist*, both as bodies and in their activities (existence in that strange sense of the acts that I have called properties). But since existence means "activity," then we can say this:

Life is the activity of a living body as living.

This is not really a terribly helpful definition. All it does, really, is point out that "life," like "energy," is one of those terms that doesn't mean some kind of limitation, but which refers to existence—but also like energy, it applies only to *certain* existences and not to others. Further, like energy, it can refer either to the unifying energy of the body or to its properties.

I think we can say this about life, however: life refers primarily to the *unifying* activity of the body and only secondarily to the properties it performs because it is alive. That is, nourishing oneself or growing or engaging in sex are only "living" in a secondary sense; these are the acts one does (among others) *because* one is alive, and

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which *reveal* that one is alive; but the life *itself*, in the really meaningful sense is the *existence* of the body in the condition by which it has the *power* to perform (or not perform, as we saw) these acts. Their presence indicates life; their absence does not indicate the absence of life. Hence, life in the truest sense is the *act* of the unifying energy of a living body.

This definition does show us that Aristotle's statement, "For a living being, 'to be' is 'to live'" is true. But the definition obviously

⁸There are also some rather rich Theological implications of this. If what Christianity does for us is enable us to "share" the life of God (this is what "sanctifying grace" is, in fact: God's life bestowed upon us in addition to our human life), then this means that in some real but mysterious sense, the Christian is living God's life. What St. Paul said in *Galatians*, "And I am not the one who is alive any more; the Prince [Christ] is living in me," is true in the positive sense, though not in the negative way he stated it. The new life of God does not remove our natural life as human, but adds to it an additional life; we are "born again" as John's *Report* says, adding something instructive: "What is born from a body is a body; what is born from spirit is spirit."

But of course, if life is existence, and we are living God's life, then each of us is God. Not a "part" of God, but something analogous to what Christians believe happened with Jesus, and which I spoke of in the first part: God's "emptying himself" to act in a human way while still being God. In the case of our lives, however, what this must mean is that our life is "expanded" somehow beyond itself to the Infinite existence, which is one act, and is God. We are still limited in one "dimension" or "reduplication" of ourselves; but in another one, our existence is without any limitation at all. So we remain ourselves naturally; but supernaturally, we are God himself—but by his free gift of himself, bestowed upon us. In this sense, we are (a) "brothers" and "sisters" of Jesus, since we are God's "offspring" by adoption as he is by nature; and in another sense (since we are humans existing with God's existence) we are Jesus himself; as St. Paul said, "we are organs of his body," living, as an organ does, with the unifying energy of the whole. So each of us is an individual, living his natural life, but also living with the life of God, which unites all of us into a single super-organism: the human who lives with God's life, or Jesus. Thus, the "mystical body" is not a metaphor at all, but a fact; it is supernatural in that it is of course not something possible by our nature; but it is not a contradiction. I will say more of this when I discuss human understanding, and how our act of understanding "empties

needs to be spelled out. What is it about the unifying energy of a living body that enables us to call that act "life" and not just "energy"?

Well, we saw that nutrition implies biological equilibrium, which is an energy level too high to be explained by the quantity of the system; growth is a process that leads upwards beyond the quantity that the body has; and reproduction implies a kind of independence of the form of—we can now say "of life"—from either its quantity or the body it happens to be organizing.

So there is this kind of independence from quantity which is distinctive about life as opposed to inanimate energy. But I think that though this is what at first is striking about life vs. inanimate energy, it is what is behind this that is what life really is: this independence from being dominated by quantity gives the unifying energy *control* over what it is doing. So let us make this the definition of life:

Life is existence insofar as it is in control of itself.

Let us state the more obvious "definition" of life (that of independence to some extent from its quantity) as a conclusion—a kind of corollary, if you will, to this definition:

Conclusion 20: In order for existence to be in control of itself, it must not be dominated by (or under the control of) its quantity.

What this conclusion implies is that to the extent that a being's

itself" into knowing just one fact at a time, and how, though its limitation is that it *must* limit itself in order to act, in itself it is beyond all limitation. God removes this restriction. But, as I say, I will expand a bit on this later.

activity deserves the name "life" rather than mere existence, then it will be more and more independent of its quantity, or tend more and more toward the spiritual—which, of course, would mean that all spiritual beings are alive.

I mentioned at the beginning of this chapter that we had to be careful to come up with a definition of "life" that didn't just apply to living bodies, since we had a hint from revelation that "life" describes God also—not that revelation should ever determine what we do as philosophers (because as philosophers our evidence is the observable data in front of us, not what is written in some book or in some tradition), but it should not be ignored, since it is a fact.

In any case, let us look at the inanimate and living things, to see how the definition (and the corollary above) work. It should be the case that the higher you go in life, the more control the being has over itself, and the more independent it is from quantity.

At the lowest level of existence, then, we have inanimate bodies, which, as I said, are dominated by their quantity and are at the mercy of forces acting on them. At the next highest level, we have the form of the unifying energy determining what quantity the biological equilibrium is to have, which clearly implies that the form of the unifying energy is independent of the quantity it happens to have at the moment. As we will see in subsequent chapters, when we move up to sentient life, we have an act which, because it "reduplicates" itself in one act (is conscious), "possesses itself within itself" in some sense, and directs not only the basic biological equilibrium energy level of the animal, but its activity in responding to its environment; and since the act contains itself within itself, it is basically a spiritual act, not energy; but at the sentient level, it must also "reduplicate" itself with a quantity, and so, while it is in itself infinitely beyond any quantity, it necessarily has a quantity. At the human level, we have understanding and choice, in which the being not only "possesses"

itself, but recognizes itself for what it is, and actively makes itself be what it wants to be—within the limits of the range of possible selves given in the genetic structure; and the acts of understanding and choosing do not have a quantitative "reduplication" of themselves as sense acts do; but since they use as the range in which they can determine themselves the spiritual "dimension" of sense acts (which, as I said, have a quantitative "reduplication"), these spiritual acts are indirectly connected with quantity, and the human spirit also organizes a body, though it could exist without doing so. Beyond this, one may speculate that there are spiritual forms of activity who decide for themselves what form of activity they want to be (unlike us, who can decide what *level* of *human* existence we want to live at), but who must choose to be some form of existence; and of course, this "choosing a form of existence" for oneself could only be done by a pure spirit, because the act, while spiritual, has to be in principle beyond the spiritual act chosen. Finally, there is the act which has no restrictions on it whatever: which knows itself absolutely and chooses absolutely to be itself. And this is God, who from this point of view is absolute self-control. And of course God is also absolute lack of limitation.

Hence, the definition and its corollary seem to work. Life, then, is freedom from quantity. To the extent that a being is that much more free from domination by its quantity, to that extent it is living with a higher sense of "life," and to that extent it has more control over what it itself is doing.

It is this notion of *control* over itself that is the basis of Aristotle's and the Scholastics' definition of life as "self-movement" or "self-initiated process." That is what the control boils down to in practice (at least very often) in the case of living *bodies*. But it isn't because they are *moving* or *in process* that they are alive; it is that they are controlling their activity that makes them living as opposed to

inanimate.

And this distinction of activity in control of itself from process, whether self-initiated or not, allows us to bring back what we said about equilibrium throughout the preceding investigation, and put it now into a formal conclusion:

Conclusion 21: Life is essentially activity *in equilibrium*, not the activity which is process.

This means that life as such is not "headed anywhere," except in the first stages of life of a living body, when it is growing up to its biological equilibrium. Once biological equilibrium is reached, however, the processes within life always bring it back to that energy level insofar as they can; and so it stays the same. So the tendency of life as such is to stay the same. And of course, this is supremely true of the very highest life there is, God; and it is also true of pure spirits, if there are any. It is true also of human beings, because after death (whether there is a reembodiment or not) they will reach an absolute equilibrium from which there will be no changing at all.

But if this is the case, then we can say the following:

Conclusion 22: Life has no purpose as such; it simply is. The "purpose" of any given life is the biological equilibrium which its self-control determines.

In the lowest forms of life, this biological equilibrium is set by the pattern in the genetic structure, but the unifying energy *actively* produces it; and the purpose of *growth* is this biological equilibrium. But the purpose of *life* is not that, because life *is*, essentially, the biological equilibrium. Life just is what it is. In higher forms of life, such as human life, the biological equilibrium is consciously *chosen*,

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and the body works toward it and then maintains it by the same act which chose it in the first place, as we will see. Hence, your life has as its purpose the *definition* of what your life "means" that *you give it*, and it has no further purpose. The purpose you give to your life is a purpose *within* life, but it is not the purpose of life *itself*; and this purpose within life is the only purpose your life has.

I spoke earlier of God's "purpose" in creating, and said that this does not imply some "plan" that we have to discover and live up to. God's purpose in creating me is that I be what I am; and what I am means that I decide for myself (within limits) to be what I want. It would contradict my freedom, my essence, and my life if God had some purpose for me beyond this.⁹

To the extent that something is alive, then, it has that much less "purpose" built into it, and gives itself whatever "purpose in life" it possesses.

The Redemption, by the way, does not remove this. All it does is make it *possible* (by a miracle) to erase the self-frustrating choice as an operative act in my life. But it does not automatically do so, and does not do so at all unless I change my way of thinking and, out of love of my Master, choose to become a different person (the one without such a choice as part of his life). The point here is that if I do not choose to take advantage of this, and would be damned rather than repent, God is perfectly happy with this, and I have achieved his purpose in creating me: I have made myself into what I want to be (in this case, frustrated).

⁹If I choose to be something inhuman or something that contradicts the basic human form of existence (such as a human being who has rights, but who is alone in having them, as when I choose to murder someone), then my actions cannot achieve this goal, because in fact I can't be inhuman. Hence, I can choose to be something like this, but what I actually choose in so choosing is to be frustrated in achieving the goal implied in the choice. Since this choice can never be erased by me once it is made (no choice can be), and since I do not cease to exist at death, this damns me to eternal frustration. This also is what God "wants" of me if I choose it, because he created me in such a way that it is within my nature to be able to make such self-frustrating choices if I want.

Chapter 8

The soul

Think it would be useful to reinstate a philosophical term that has been around since ancient Greece, but nowadays has little but Theological usage. I want to give it something close to the meaning it had in ancient Greece: whatever it is that makes a body be alive.

The soul is the form of the unifying energy of a living body.

Since, as we have been saying above, the form of the body's unifying energy as such is an abstraction, then so is the soul; it is the soul *with its quantitative limitation* that is the "concrete" soul; and this, of course is the unifying energy of the living body.

So the soul is not the life of the body, precisely; it is the *form of life* of the body, since life is the *existence* when the existence is in control of itself and is not dominated by its quantity; and in the living body, the form of this existence is called a "soul."

Another way of thinking of "soul" is that it is a form of unifying energy *if* the energy controls itself (or is not controlled by its quantity).

Why bother with such a term? Because it is going to be inconvenient from here on to be talking about "the form of existence when the form is not under the control of its quantity." It is much

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easier to have a term which means that.

As to its preemption by Theology, what happened is that Plato's philosophy heavily influenced early philosophizing on Theological subjects; and Plato held that the soul was a "something" that got into a body and made it live (not a difficult mistake to make, as we have been seeing), and was basically spiritual. Christianity spoke of immortality and the human spirit (though Christianity talked of a restoration of the *body*, which the Greeks in the Areopagus ridiculed St. Paul for holding).

It was not surprising, then, that the focus of attention was on the spiritual *human* soul in Christian philosophy, even when St. Thomas adopted the Aristotelian notion (which is very close to mine, above) that the soul was the "substantial form" of the living body, and so was limited by matter. St. Thomas, of course, established that the human soul was spiritual, though "transcendentally related" to its matter.

Of course, Theologians aren't interested in souls of tomato plants or cockroaches, but in human souls; and so the term "soul" in ordinary usage nowadays refers to the spiritual soul that human beings have, and people look at you oddly when you tell them that toads have souls and so do cabbages.

It is actually because of the Theological usage of the term that biologists don't like to talk about "souls"; the term smacks too much of that mysterious something that gets into a body and directs it, and seems to imply the metempsychosis of souls that need punishment into lower forms of life, as Plato and various Indian philosophies held.

But actually, there is nothing in "soul" as I have defined it that a biologist couldn't accept, though he might be a little uncomfortable about the "freedom from control by its quantity" I spoke of. Biologists have no trouble admitting that living bodies are organized,

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and that the different kinds of organization account for the different kinds of living bodies; and the soul, after all, is just the *way* the living body is organized; and as such it is the *kind* of interaction that the parts have with each other by which they act together instead of independently, as in the corpse.

So in that respect, any biologist would admit that living bodies have souls. Where the problem comes is, as I say, in this self-control and freedom from quantity that we concluded to. And the reason for this is that, given the focus the biologist has (What mechanism does the body use for X? How does this mechanism work?), they are not attuned to the implications of the living acts for the way the body as a whole is organized.

But this shouldn't give them any problem, because they should be able to follow the reasoning we have given up to this point. Unfortunately, many of them are not only not interested in doing so, but think that our kind of investigation is a sham. It is here that biologists turn into biologians, and make a religion of their own focus on things; and instead of seeing problems that don't pertain to that focus, they say that such things are pseudo-problems, because after all *they* are the scientists that deal with living bodies, and everybody knows that philosophy is a branch of astrology. The result is that serious problems are given simplistic "solutions," because the problem is not really faced. That is, everyone (but another biologian, of course) who casts doubt on the mechanism of evolution that they talk about is automatically a "creation scientist" who is trying to prove that things happened in seven days a few thousand years ago.

But that is enough, I think, to get the spleen out of my system. Suffice it here that I think that "soul" is a useful term to have, but that it should be properly understood as just the form of the unifying energy when the energy is not controlled by its quantity.

But since I have a term that talks about the form of unification of

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a body when that body is a living one, I am also going to use the term "soul" in a slightly less strict sense than *just* the form of the unifying energy (i.e. as just the *limitation* of existence), and so in itself nothing at all.

Soul will often be used in a looser sense as meaning life as limited in the way in question.

That is, "soul" in this sense *includes* the existence and means "existence in this form" when the existence can be called "life" and the life is the life of a body.

One final remark to make about the definition. Only *bodies* have souls (because it is the form of unifying energy of a body). Pure spirits are forms of life (and so is a soul) but pure spirits are not souls, because these forms of life do not organize bodies. The human soul organizes a body; but after death it no longer does so (as we will see). Is it a soul then? Yes, because it is a form of life which *by nature* organizes a body, and the disembodied human soul is in an unnatural condition, as we will see later. St. Thomas says that the disembodied soul after death is still "transcendentally related" to the body it used to have (which differentiates each of us after death and makes us not be absorbed into a kind of "humanity as such"); but we will also see this later, because my version of what means is somewhat different from what I think St. Thomas meant by it.

Chapter 9

Faculties

here is one other term I want to bring back from ancient times, and which is still with us in something close to the sense I want to give it:

A *faculty* is a part of the body organized with a sub-unifying energy such that its instabilities and recovery from them provide the living body with its living properties and allow it to control them.

The faculty, then, is the *mechanism* by which the living body performs (and does not perform) its living acts. The fact that it is a kind of "body" integrated into the whole body is what enables the body to turn its properties on and off.

What happens here is that the body (which exists, remember, at a super-high energy level, and so has reserve energy) can *send* energy from some other part of itself into the faculty, which then makes the faculty unstable; and its recovery of its equilibrium produces an act, which is the property the body "wants" to perform at that moment.

Thus, lowering of the blood sugar triggers a flow of energy into the digestive system and the nervous system, making you feel hungry; and it activates the program called the "hunger drive" in the brain, by which you start imagining things like chocolate cake or a thick

steak broiling; and this in turn sends energy into the motor nerves putting your muscles into an instability which involves rolling out the old grill and firing up the charcoal and so on, and whose purpose is having the blood sugar and other lacking elements back at biological equilibrium.

Obviously, these mechanisms are horrendously complex, and don't just involve one organ, or even one "system," such as the digestive or respiratory or nervous system. Hence, there isn't a one-for-one correspondence between the faculty in the philosophical sense I want to use it and the various "systems" biologists talk about; though there is a connection between the two. But, for example, the nutritive faculty would include *both* the digestive system and the respiratory system, because these are the ways we get and keep our energy level.

Again, there isn't much of a problem here, once it is realized that there is nothing wrong with the biological way of looking at things, which works for the purposes for which the biologists want to study the living body, and the philosophical way of looking at the body, which works for the philosopher's different focus.

But precisely because of this difference in focus, I think it is useful to speak of a "faculty" rather than a "mechanism" or "subsystem," so that the subsystem we are referring to philosophically doesn't get confused with the biological subsystem which may or may not be identical with it (Some are identical; I don't see any real difference between the faculty of reproduction and the reproductive system, for instance.)

The term itself is from the Latin *facultas*, which means an "ability" in the sense of an "aptitude" for doing something; and this in turn is a translation of the Greek *dynamis*, which is the ordinary word for "power" or "ability." The notion of a "power" in more or less the sense I defined it originate in Plato (in Book V of *Republic*,

to be specific), and was considerably refined by Aristotle (in *De Anima*). The idea there was that it was a kind of more specific notion of "nature," which was the organism looked on as the ability to perform its properties. A "faculty" was the power to do *some definite act*, and as *Republic* shows, the implication was that each different act implied a different faculty. Plato, for instance, has the faculty of "knowledge," by which we arrive at what *is*, and the faculty of "intuition," (*doxa*) which gives us opinions about things that are midway between "really existing" (the Aspects) and nothing—the individual objects of our world. Since the objects reached are different, he argues that this implies different faculties. Aristotle similarly defines a faculty as specified by its act (and hence its object).

I would not want to make faculties *that* detailed and specific. Just as a body can have many different instabilities it can get into, so a subsystem of the body can have different instabilities and therefore perform different acts in recovering equilibrium. The faculty I call "instinct," for instance, is the basic program of the brain, by which it monitors the state the body is in and the input coming in from the senses, and selects behavior patterns appropriate to both sets of information. But these behaviors are many, and include all the drives that we have, and involve all the emotions we experience. Instinct also, because of its control of energy-flow in the brain, is the faculty of attention, by which we are not conscious of "unimportant" information and the "important" input is highlighted.

It is because I am concentrating on what the *part of the body* does because of its organization into a subunit rather than on the act as implying the "power" to do it that "faculty" in my sense is rather broader than the traditional sense of the term.

I think my way of looking at things is rather more useful. A "power" as such is not anything at all; one has to ask "What *reality* is it that is the reality of this "power." The power in question is not

the same as the power of an *inanimate* body to act—to reradiate a certain wave length of light and be a certain color, for instance—because the inanimate body can't help doing this. The "power" that is a *faculty* is the power to act *and not act*, to turn the act on or off, without its being done so from *outside* the body. This is something that makes living bodies distinctive.

But then what *is* this power to act and also not act? It is the subsystems of the body. If these systems are shut down or defective, then the body cannot perform the act in question, even though it is fundamentally capable of doing so from the way it is organized (its soul). We can see this from organs that break down and then are fixed. A detached retina, for example, makes the person blind; but if it is attached, he can see again.

So the soul controls the body by controlling how the reserve energy is distributed within the body, and whether it goes into one faculty or another. Once the energy gets into the faculty, it makes it unstable, and everything from then on is automatic and more or less mechanical (or at least physico-chemical). The soul cannot act without the parts of the body in question; and of course, the parts can't act by themselves without the regulation by the soul. But that the action is mechanical can be seen from how we can keep organs "doing their thing" mechanically after the body actually has died, if we mimic what the soul did by sending the right energy and so on into them.

So a faculty has to be a part of the body (or if you will, an organized set of parts of the body—but this, as we saw in the preceding part of this book, is a part). From this it follows that a pure spirit has no faculties, because it can't turn its acts on and off; it is always acting. So, after we die, for instance, we will no longer be able *not* to do whatever acts we have left (our spiritual acts of thinking, choosing, and the spiritual "dimensions" of our sensations); we can't

forget anything, because this requires the *faculty* of consciousness which is the brain and nervous system.

If this is so, then we can say the following:

Conclusion 23: God has no faculties; he is pure activity and cannot be inactive.

Thus, God does not "have" an "intellect" and a "will." He is thinking and choosing as a single act, and cannot not think of everything he is thinking of eternally. He can't turn his act on and off—which is fortunate, since if he did, everything (including himself, of course) would go out of existence, as we saw in Section 3 of the second part of this book.

But this doesn't just apply to God, but to pure spirits also, if any, in addition to disembodied souls, as I said. Actually, it is this fact that our consciousness—all of it—becomes eternally active all together when we die that makes it vastly to your advantage to be moral and never choose a goal that you can't in principle achieve, because then you eternally intend (and try) to be something that you eternally know you can't be. We can forget the mess we have made of our lives here; we can't forget hereafter.

A word should be said about the difference between a faculty and a feedback mechanism, such as we find in a computer or a thermostat. Since the thermostat is pretty simple, I will use it as a model. All a thermostat is, really, is a switch that uses a curved piece of metal as one of its contacts.

The mechanism is adjusted so that at the temperature desired, the switch is closed; and this turns on the furnace which puts heat into the room. As the room and the thermostat in it heat up, then the curved piece of metal begins to expand, increasing the radius of curvature, which makes the free end of the curved piece move away

from the other contact, thus opening the switch—which, of course, turns the furnace off, allowing the room to cool down, and the curved piece of metal to contract. When the desired temperature is reached again, the two pieces of metal are again in contact, the furnace goes on, and the cycle is repeated. The idea of this is that some of the heat put out by the furnace works the switch, which turns on the furnace; and so some of the energy of the furnace is "fed back" into it, regulating it.

The main difference (aside from complexity) from living bodies and their faculties is that a feedback mechanism needs an external source of energy. That is, a thermostat and a furnace will not work by themselves; you have to plug the furnace into an energy source, or the switch (the thermostat) won't turn it on and off, because it has to be pushed above its ground state to produce heat. The living body, on the other hand, has in itself reserve energy (which it keeps supplying for itself from outside, to be sure) which it can send into the various feedback mechanisms of the faculties to turn the proper acts on and off. Other than that, many of the faculties of the lower forms of life work like feedback mechanisms.

Let this be enough about life in general, then, and the lowest form of life. It is time to pass on to properties that only some living bodies have, and see what this says about the way they are organized.

Section 2 Consciousness and Sensation

Chapter 1

Unconscious consciousness?

The next highest mode of life is that of sensitive life, the life of what we call "animals." Aristotle said that the main difference between plants and animals was that animals could move around and plants couldn't; but there are animals (like barnacles and sea anemones) that stay in one place, and so that doesn't seem to be the essential difference. It would also seem that, for bodies that can move around, some kind of contact with what they are moving into and away from would be necessary; and so sense consciousness seems at least a prerequisite for moving from place to place. For these two reasons, I think that sensation is what distinguishes plants from animals.

But there is another reason, too. I am going to try to show that sensation, as a kind of consciousness, is basically a spiritual act, which implies that any sentient body is living, not just *above* the particular quantity that would be that body's ground state (and natural to it as a body), but in some sense *totally beyond* any quantity at all. This means that it is sensation that indicates that animals are a totally different kind of thing, and essentially greater than plants. With sensation, life moves up to a higher level.

There are those philosophers, of course, like Leibniz and Whitehead, who hold that all reality is some kind of consciousness;

it is just that the consciousness of rocks and things is so low that from our point of view it seems to be unconsciousness.

I think if we apply William James's pragmatic criterion to such claims, we find that "consciousness" just turns out to be a nice term that doesn't mean anything as applied to inanimate bodies or plants. If the "consciousness" is at such a low level that it isn't aware of being aware of something, then what could be the meaning of "unconscious?" *Any* reaction to something would then be "consciousness"; but then why call it "consciousness" when we have a perfectly good word for it, and why be forced into making up a special qualification (perceptions vs. apperceptions: Leibniz; physical feelings vs. conceptual feelings: Whitehead) to fit what we mortals called "consciousness" in the first place?

Leibniz fell into what I consider his error by his correct insight into the fact that a "perfection" is actually an internal activity, and is not static. Couple this with the Cartesian notion of starting inside yourself with your "innate ideas" and proceeding mathematically, and you might well come up with monads that are bundles of different levels of consciousness. Whitehead also had this Cartesian starting-point, where there is no distinction between subject and object, really; and he made the additional mistake of Hegel and Heraclitus that activity has to mean process.

What I am saying is that a person reading them and aware of the historical context in which they wrote can see why they said what they said; but this does not alter the fact that calling rocks "conscious" only muddies the waters of an already very complicated subject.

Actually, the same sort of confusion is still going on, but this time in modern psychology, and for a different reason. Psychology, of course, wants to be as scientific as possible; and "consciousness," with its intimations of spirituality, doesn't sound scientific. Hence, psychology tends to define consciousness in such a way that you

don't have to rely on introspection to find out whether something is conscious or not. But the result of this is that, when all of the verbiage is boiled out of it, "consciousness" it taken to mean either "any selective reaction to the environment," or perhaps more restrictedly, "any selective reaction of the nervous system to the environment," or "any reaction of the nervous system in general," or perhaps, "any nervous activity involving the brain."

That is, you can observe reactions, noting the stimulus and the response, and you can catalogue them. In this case, what is going on inside the organism to produce the response is irrelevant. Or you can observe electrical activity in the nerves, which seems to be connected with what we normally call "consciousness"; and so you don't have to ask a person, "Did you see that?" You know he was conscious if you can detect a response by tapping into the optical center of the brain.

That's all well and good, but the problem is that this means once again that we have to be called "conscious" of things that we're not (consciously) aware of, and once again the term "unconscious" becomes meaningless. If a blade of grass reacts to white light by radiating out green light, isn't this a selective reaction to the environment, and wouldn't that make what it is doing conscious? Or if your nervous system responds to something and you have no slightest hint that it is doing this, then what is the difference between this reaction and the reaction of your endocrine system—or for that matter, the reaction of your skin to the light falling on it, which gives you your color? If it's just the reaction, what's so special about the nerves? Further, what of the reaction of the nerves in the eye, say, when the optic nerve leading to the brain has been cut? The person claims he can't see, and bumps into things his eyes are reacting to, because the nerves up to the cut are still doing their thing. Is he visually conscious though blind?

Granted, when we are aware that we are reacting to something,

there *is* a response in the nervous system; but the converse isn't necessarily true. Whenever you have food in your stomach, your stomach secretes acid; but it doesn't follow that secretion of acid means that you have food there. Ask anyone with an ulcer. Calling activity you aren't aware of "consciousness" just because you can observe the nerves' output is as intelligent as calling the secretion of acid "digesting food" because you find it easier to measure the acid.

Besides, with this view you again have to invent a term to refer to the kind of activity that people ordinarily call "consciousness," and call it something like "self-aware consciousness" or "reflective consciousness," or something to indicate that the person is not only being active (with his nervous system or whatever), but knows that he is being active. But this is what people who don't have a special bone to pick mean by "consciousness," and it distinguishes "being conscious" neatly from "being unconscious." If someone asks you "What's that man's name?" you might think for a minute and say, "I don't know," and your state is the same as that of the person who asked you-it is as if you never heard of the man's name. But if something suddenly dawns on you, and you say, "Wait a minute, I remember now; I was introduced to him once; his name is Frank Peters," then you are conscious of what his name is, even though before this you had it filed away somewhere in your brain because you had been conscious of it before.

But the point is that the state you were in when you said "I don't know," even though you did have the information inside you (and presumably accessible, since you in fact recalled it later) is *for you* no different from the state of total ignorance; and I don't see how it is legitimate to call this state of *not knowing* "being conscious."

So for this reason, and also because it is this "being aware of being aware" that is the effect I want to explore, I would like to make a preliminary definition of consciousness in the following way:

An act is *conscious* if the being in question is conscious of being conscious.

This is obviously not good as a real definition, since it uses the term it is supposed to be defining. The only thing it does is eliminate "subliminal consciousness" from deserving the name "consciousness." If something is "conscious" it is "super-liminal" or at least "liminal"; it has to pass *beyond* the threshold of the "awareness of the awareness" to be called "consciousness" and not simply be "a reaction to" something.

Unfortunately, this definition of consciousness makes it a matter for you alone to know when you are conscious and when you aren't, because you can react (even in complicated ways) without being aware of what you are doing. My brother, for instance, relates an incident in which he was pitching in a softball game, and got hit between the eyes with a line drive. He woke up two innings later standing at the plate, batting, having pitched two innings without being conscious of it—or at the very least, having no recollection whatever of those two innings, even immediately afterward. And we have all, I suspect, had the experience of stepping on the brake of the car and only afterward realizing that we did so because of a red light.

So the reaction itself, even if it would normally be a conscious reaction, doesn't necessarily mean that it was conscious. And the same goes for nerve-output, because there is obviously activity in the brain's nerves that is below the threshold of consciousness, which implies that consciousness and brain activity are not one and the same thing; and this calls into question whether it is *always* the case that activity above the normal threshold of consciousness actually involves consciousness. Hence, in the last analysis, you are conscious when you are aware that you are, and no one else can tell this but you.

Then are animals conscious? Obviously, we can't know, because

they can't tell us.

Nevertheless, we can make a pretty well-educated guess. Given that every time people who claim to be conscious have (as far as we know) the right degree of activity in the proper nerves in the brain, given that the nerves connect the various sense organs with the brain, then it seems quite reasonable to say that the faculty of consciousness in us is the nervous system, and that the consciousness actually occurs when the brain's nerves are activated. This is confirmed by direct stimulation of them; because the person whose nerves are directly stimulated by an electrical probe reports being conscious of the sensations associated with the area of stimulation.

But if the nervous system is our faculty of consciousness, then it would only be reasonable to assume that animals, which have sense organs and a nervous system like ours, have some kind of consciousness to go along with it. If our brains are not simply biological computers, but have consciousness as a kind of epiphenomenon of what the brain is doing, then it would be reasonable to say that this epiphenomenon also occurs in animals, though we could never prove it. But what could my dog's whimpering and twitching her legs in sleep mean if she was not dreaming and conscious of something?

Not that this matters, of course. We are not really interested in which bodies are conscious and which aren't, but in what being conscious says about the faculty and about the basic organization (the unifying energy) of the body. Probably animals are conscious; but if they aren't, then this doesn't affect what we are going to be saying about things that *are* conscious.

Chapter 2

One act or two?

→ he way I want to approach an investigation into sensation is this: First, I want to rediscuss something I talked about in Chapter 11 of the first section of the first part, whether consciousness and being-conscious-of-being conscious are actually two acts or one and the same act. Secondly, having determined that the only sensible answer is that "they" are actually one single act, I want to find out what is implied in an act's being able to "duplicate" itself without being two acts or two parts of a greater whole. Thirdly, having come to the conclusion that this implies spirituality in the act, I want to discuss what this means with respect to the faculty and its organization, and fourthly, what it means with respect to the conscious body and its organization. Fifthly, I want to get into what the special kind of consciousness called "sensation" entails; and we will see that it means that the spiritual act of consciousness "reduplicates" itself as a form of energy also, so that the energy and the spiritual act "are" one and the same act in reality—and how this is not a contradiction. Then I will briefly run over some things that actually belong to psychology: the various types of sense acts and their functions and the aspects of the sense faculty they involve.

Let me, then, review what I said in the first part about why consciousness and being-conscious-of-being-conscious cannot be two acts. To take the second part of the argument first (because I intend

to expand on the first a bit), if they were not two acts, then we could not be absolutely certain of the contents of our consciousness, since our knowledge of what we know would be awareness of what is in a different act, which it is certainly possible to be mistaken about. It would be like remembering; and we know how faulty our memory can be—so even if we "remember" the act we just had, it is certainly possible to be mistaken about it. But we know, as I stressed so often, that it is not possible to be mistaken about facts like, "There is something." The only way we could be absolutely certain of this is if the very act of knowing knew itself immediately, and knew itself to be something.

The other line of reasoning went this way: The act (of knowing that one knows) knows *all about* the act of knowing. It is not simply aware that "knowing (seeing, hearing, whatever) is going on," while the other act (the seeing or hearing) supplies the contents of the complex system of acts. The reason for this is that the act of knowing that one knows knows the *characteristics* of the supposed "other" act exhaustively. Insofar as you know your reading of this page, you know that you know what words you are reading, how clearly you see them, how clearly you understand them, how bored you are, and so on and so on.

It is not possible, then, for the act of seeing, say, simply to send out energy to another part of the brain that reacts to activity in the visual centers, and the two acting simultaneously would be "knowing that I am seeing," because, while differences in energy levels might indicate knowing how clearly you are seeing, you would still not know in this second act the *contents* of what you were seeing—or the whole of the act of seeing gets transferred to this other area, and then what is going on in the visual centers themselves are superfluous. The other area of the brain is where you both know and know that you know—because, as I mentioned above, you don't know *until* you

know that you know.

Secondly, as I also mentioned, this "second act" theory leads to an infinite regress, because the act of knowing that you know is conscious (you *know* that you know that you know, or you couldn't talk about it), and hence it would need a "third act," which would also have to be conscious, and so on. This would imply an infinite number of areas of the brain, each devoted to making the preceding act conscious.

Thirdly, as I mentioned too, the "I know that I know" act is aware, not only of the "first act" and (whether directly or indirectly) itself, but of the *relation* between itself and the "first act": that it is an act of *knowing* the "first act," and in fact of being absolutely certain of what the first act is, even when it knows with absolute certainty that the "first act" is not absolutely certain of its contents, or even that the "first act" is doubtful or probably erroneous.

Fourthly, there is something I did not mention, that the "second act" has to know whether the "first act" is spontaneous (imagining) or a reaction to an outside stimulus (perception) in order for us to be aware of the difference between the real and the imaginary. Hence, the reach of the "second act," if there is one, is *beyond* the "first act" to its being an effect or not of something other than itself. This problem is easily solved if the "first act" is aware of itself; because if so, it can recognize whether it is spontaneously acting or is being forced to act by something other than itself; but how a second act could be aware of this character of the act is very hard to see, to say the least.

Fifthly, the "I know that I know" act has to be the one that *makes* the "first act" *conscious* and not just a reaction. When you react visually to some stimulus but do so "subliminally," this reaction can even cause overt behavior; but you are not *conscious* of seeing anything. So the "second act" somehow changes the *nature* of the

"first act," and converts its contents into being consciously perceived contents from being mere reactions. If the "second act" is a mere reaction to the "first," it cannot do this, any more than the pilot light on the stove can alter what is going on in the burner. Hence, the "second act" in this case would have to act on the first one to make its contents conscious. But if it is making the other act conscious, how does it appear as a reaction to it? And it does, because it seems to be aware of what is happening in the "first act." And again we have the problem of what makes it conscious, if the act does not somehow contain itself within itself—which is what this "two-act" theory is trying to avoid.

Sixthly, if the "second act" actually does something to the "first act" to make its contents conscious, then (a) it can presumably only act after being acted on by the "first act," because it would have to be triggered into altering the "first act" by there being something to alter; but (b) then after doing what it did to make the "first act's" contents conscious, the "first act" would then have to act on it again, so that it could know what the contents were (because in its first reaction, of course, the contents weren't conscious, and in doing what it did to make them conscious, this only affected the "first act" and not its knowledge of it); and it is only when all this happens that consciousness actually occurs—though presumably, the "first act" is actually conscious between the time when its contents are made conscious and the second act becomes aware of the new status of the act. And we are, of course, still confronted with the difficulty of how this second act, when all this happens, knows that it knows what is going on in the "first act."

No, the more you try to see how it is possible that there could be two acts (or two *distinct* parts of the same act, which amounts to the same thing), the more impossible it seems to be able to explain how the evident facts about consciousness come about: how we are

perfectly clearly aware of what our act of consciousness is.

Hence, it seems only sensible to take the view that *the act of consciousness knows itself completely*. Hence, we can give a more accurate definition of consciousness:

A conscious act is an act that contains the whole of itself within itself; or it is an act that reacts directly and completely to itself.

This means that I think that the view of Aristotle and St. Thomas on sensation is wrong. They noticed that we don't *see* ourselves seeing, and so concluded that what I will call the "integrating function," (the *sensus communis*) is what makes acts like seeing conscious. For the reasons above, I don't think that this position is tenable. St. Thomas does hold that at the intellectual level this single act is aware of being aware (where the Scholastics call it "complete reflection"); but his grounds for not holding it at the sense level is that sensation is not really spiritual but only "immaterial" (something I am going to hold, but with a different meaning), because it is tied down to individuality, space, and time, while concepts are not.

As to our not seeing ourselves seeing, seeing as such is a *form* of consciousness; and while I claim (because I can't see any way around it) that the *act* "duplicates" itself, it does not follow that its *limitation* "repeats" itself. In fact, as we will see, any given act of consciousness (even a "simple" sensation like seeing) contains many different forms of consciousness in this same act: you see a color and a shape; you hear a pitch and a volume and a timbre, and so on—and these various forms of consciousness "interpenetrate" each other so that the color contains the shape and the shape contains the color, and are obviously what Hegel might call "moments" of one single act of consciousness.

So the act of consciousness, apparently, in "duplicating" itself, takes on various forms, and is one polymorphous act. Hence, the fact that we don't see ourselves seeing is no argument that being aware that we are seeing involves a different act from the seeing itself, still less a different faculty.

The reason this "duplication" is called "complete reflection" in Scholasticism is that the act acts back on itself totally. The reflection in a mirror is incomplete reflection, because what you are looking at is an image of your face, and you don't duplicate the *seeing* in the mirror: that is, you don't, in seeing your face, get into the mirror somehow and experience yourself as looking back out of it. But this sort of thing is what happens in consciousness. André Marc, in *Psychologie Reflexive*, uses a term that I find expressive: he calls it "self-transparency." The act is perfectly clear to itself, because it contains the whole of itself within itself, including all of its multiple forms (and presumably some formal representation of its quantity, if any, as we will see).

Chapter 3

A form of energy?

The next question is whether an act that duplicates itself without being two acts (or one that contains the whole of itself within itself as part of itself or one that is self-transparent) can be a form of energy.

Since I am going to say that sensation is (also) a form of energy, let me make myself as clear as I can here at the outset. What I mean by "a form of energy" in this question is a mere form of energy: that is, an act which has a quantity such that it is no more than this much of this kind of activity. An act which is basically spiritual might, in one of its "duplications" of itself, do so to a limited degree; but then in itself it is infinitely beyond the quantity that this particular "duplication" of itself has. The question here is whether an act can "duplicate" itself if it is simply a form of energy, so that there is no more to the act than this much of this form of activity. For purposes of this discussion, we will table what was said about about the polymorphous nature of the act of consciousness, because if a form of energy can "duplicate" itself in any sense, it might also be able to take on different forms at once. It doesn't sound promising on the face of it, but let us leave open the possibility for now. If, of course, we can show that a form of energy can't "duplicate" itself while still remaining one act, then of course it won't be able to be polymorphous either.

There are two lines of investigation possible here, one empirical and one arguing from what we know about energy; and both should reinforce each other, or we are on shaky ground.

Let me take the argument from the nature of energy first. The idea here is that if an act has a definite quantity, this means that it is this much and no more; but if it "duplicates" itself, the quantity will not be sufficient to allow this. What I will be trying to show is that if the act "duplicates" itself and has a quantity, the quantity it has will have to be greater than the quantity it has, which is obviously a contradiction.

First let me say that, while seeing this page and knowing that you are seeing this page are one and the same *act*, because of the reasoning above, this does not mean that "they" are not different in *any* sense: you do not, as Aristotle said, *see* yourself seeing the page. Hence, there is in some sense a *real* duplication here within the same act, because "knowing that you are seeing the page" contains "seeing the page" *within* it as a kind of pseudo-object of "knowing that...". This, in fact, is what got people like Descartes into trouble, because they thought that the form of the act of seeing was *the* object of the knowledge, and you had to argue to a cause "out there" which was supposed to match the form under which I see it. We talked about this in the section "The form of consciousness as nothing" in Chapter 7 of Section 3 of the first part.

But the point here is that the "knowing that" and the seeing are not absolutely identical, although the "knowing that" contains the seeing and the seeing contains as part of *it*self the "knowing that." Let me expand on this second clause a bit. Since the seeing is not seeing unless it is conscious, *part* of the act of seeing is knowing that you are seeing; and generally speaking we don't explicitly advert to this "knowing that" aspect of seeing; it is just there, but we simply see the object. We are conscious of the object in seeing it, and as

soon as we pay attention, we know that this means that we are *conscious of being conscious* of the object; but this "knowing that" is really contained within the act of seeing as just a part of it, and not the most important part at all. Hence, the "knowing that" contains the seeing as a part of itself, and the seeing contains the "knowing that" as a part of itself. The whole of each is contained within the other as just a part of the other.

Notice that this containing as a part is not the same as what the mathematicians talk about when they say that a set is a subset of itself (because all of its elements are obviously elements of itself). What I am talking about above is what the mathematician would call a *proper* subset: one in which some element of the whole set does *not* appear in the subset. Thus, if you examine the seeing as such, the "knowing that" as such does not appear as what it means to be seeing, which is why the seeing appears to itself as a kind of pseudo-*object* of the "knowing that." But this whole is contained within the part as a proper subset of it, as I was saying.

In any case, if you want to be honest with the data of consciousness and draw out what you are saying when you say "I know that I know X," you find that you are talking about an act that really "does itself" over again without being two acts.

Now then, if any act like this is a form of energy, then this means that it has to *act on* itself and *react to* itself, making itself *different* from what it would be if it didn't do this (because if it doesn't, it's just an unconscious reaction). But of course, for energy to act on anything means to transfer energy into it. But it can't *directly* transfer energy into itself, because then it would have to add energy to itself and simultaneously lose energy from itself; but this is absurd. What it would mean, in terms of energy, is that the act simply did nothing and stayed the same.

That is, we are not talking about a feedback here. A feedback

always involves a *system*, in which one *part* acts upon a distinct other part, doing work on it (actually transferring energy into it). The heat from the furnace acts on the thermostat, opening the switch and turning off the furnace. But we saw that there can be no such indirection or "loop" in being conscious of being conscious; the act is directly and immediately aware of itself, and there are not two parts involved here at all. Hence, to take the thermostat analogy, what consciousness would be analogous to is having the *heat itself* raise its *own* temperature without resort to a furnace or an external source of energy (because the act must be in some sense "double" itself in itself).

So it seems that energy cannot in any meaningful way act upon or alter itself directly. If we take what was suggested at the end of the preceding paragraph, we can see this from a different angle. If consciousness is energy, let us suppose it takes 10 units of "consciousness-energy" for you to see this page. Now part of that 10 units of energy is the "knowing that," because that is contained within the seeing or it would be a reaction, not consciousness. But since the "knowing that" contains as part of itself the whole act of seeing, then this means that the "knowing that" must involve at least 10 units of "consciousness-energy." But if the "knowing that" is only part of the seeing, then obviously it contains less than the 10 units of energy it takes to see the page, because it is only part of the act of seeing. But it has to have the "rest" of that act (the "seeing" part) within it, and so what is less than 10 units would have to take the whole 10 units to act (itself plus the "seeing" part). And this does not take into account what is implied in being aware that you know that you are seeing, which would involve a third "duplication" of the act, containing the other two within it (because you know what it is that you know you are seeing—so both of the other aspects are inside this one). If this containing is a real containing (and I tried to show

above that it is), then the act has to have parts with quantities that are simultaneously less than and equal to the whole of the quantity it has. This is clearly a contradiction.

Or if you prefer to consider that the act "does itself" over again, then obviously if it takes 10 units of "consciousness-energy" to see the page, it will take another ten units of energy to know that you are seeing the page (since the second time around duplicates the first one); and so if it takes no more than 10 units, it takes at least 20 units to see the page and be conscious of it—which is one and the same act as seeing the page. And of course this would apply no matter what number actually was needed to see the page; the number would always have to be at least twice as great as it is—in fact, at least three times, because we are aware that we know we are seeing the page, which implies a "triplication" rather than a "duplication." But this is impossible if the act has a quantity in the sense that it is this much and no more than the amount in question. There could be no question of its pulling in outside energy to "duplicate" itself, because while it is no more than 10 units, it is also at least 20 units. Pulling in outside energy would be all right if (a) the "duplication" were another act, or (b) the "duplication" was an alteration of the original act so that the original one disappeared in the more energetic version. But the original act is the "more energetic version"; it contains the "more energetic version" within it as part of itself. That is, the act doesn't get transformed by being conscious of itself while it is conscious of X; being conscious of X is being conscious of oneself being conscious of X.

The result of this is that if you say that the act is a simple form of energy, with a definite quantity, then there is no way of making sense out of its duplicating itself without being two acts, because then it has a quantity greater than the one it has. There is also no meaning in talking about it as containing the whole of itself as part of itself,

because then the part has a quantity both less than and at least equal to the whole.

Of course, all this also ignores the fact that the Second Law of Thermodynamics rules out any real action of energy on itself, because if it were really acting on itself, some energy would have to be lost out of it.

Hence, there seems to be no way to describe consciousness accurately in terms of its being a form of energy.

Now then, if we take the empirical approach and suppose that consciousness is some kind of energy, then it should be at least in principle measurable, or at least detectable.

It is quite possible, of course, if it is energy, that we might not be able to detect it in practice, because we might not have an instrument that can be affected by that form of energy. But still, it could probably be detected indirectly, because the First Law of Thermodynamics says that a given form of energy does not come into being absolutely; it is always due to a *transformation* of some other form of energy—which means that the other form of energy loses an amount to match the quantity of the new form of energy that got transformed out of it (taking into account the proper conversion factors).

And we do know this: forms of consciousness are associated with definite areas of the brain, and occur when the nerves in that area are active *above a certain degree*, the "threshold of perception." Fortunately, we don't have to go into the physiology of this, about how a "greater degree" of energy in the nerves means, not a stronger impulse passing from one nerve to another, but more *frequent* bursts of energy, and about how several nerves can be adding energy to a given nerve, and all the complications of that sort of thing. It is enough for our purposes that there *are* degrees (and degrees measurable in practice) of energy-output of the nerves in the brain;

and that when the output is below a certain critical level, the person never reports being conscious; and when the output is at or above this level, the person reports being conscious.

There are several things to note here. First of all, we can say that consciousness is *not* absolutely identical with the electro-chemical output of the brain's nerves, because then there would be consciousness whenever those nerves were putting out energy, and we know that this is not the case; consciousness occurs only when the energy-output is above a certain level.

Secondly, it should be noticed that the nerves in the different areas of the brain have all the same structure, and certainly the same kind of electro-chemical output. This means that the nerves associated with seeing are identical with those associated with hearing (as far as anyone can tell), and what they do when you see is identical with what the hearing nerves do when you hear. The only difference between them and their activities is *where they are* in the brain. Yet the *forms of consciousness* of seeing and hearing are *qualitatively* different; seeing is not the same *kind* of act of consciousness as hearing, differing only in "location" somehow. This seems to indicate once again that consciousness is a different act from the electro-chemical output of the nerves, but it adds the peculiar fact that the same form of energy is associated with entirely different forms of consciousness, depending only on where that energy is located in the brain.

The third thing to notice is that if consciousness begins to occur as the nerve-output reaches the threshold and also becomes more vivid as the nerve-output increases beyond the threshold (such that reported degrees of vividness match the increases of energy-output, though not in a perfectly straightforward way), then this has to mean that if consciousness is a form of energy, it is taking energy from the nerve-output. It can't simply come into being, but has to be a

transformation of some other energy; and what other energy could it be but the nerve-output? It is obviously intimately dependent on this energy (and, as far as we can tell, no other).

Hence, if consciousness is a form of energy, we have to say (a) that it is different from the electro-chemical output of the nerves, and (b) that it comes from and takes from that output. This means that, since we can measure the electro-chemical output of the nerves in the brain, we should be able indirectly to detect and measure the consciousness-energy, if it is energy.

Obviously, we would measure it by noting how the energy output of the brain's nerves increases with increase of the stimulus up to the threshold of consciousness. Up to that point, the *total* output of the nerves will be nothing but electrical energy. But once the threshold of consciousness is reached, the output of the nerves must split in two: some of it being consciousness-energy and some of it remaining electrical energy. Hence, now that the electrical output is only *part* of the total output, we can predict that if consciousness is in fact energy, the electrical output will show a leveling off at the threshold of consciousness, and then a *decreased slope* in its increase afterwards, as more and more of the output goes into more and more vivid consciousness-energy as well as greater electrical energy.

Consider a representation in which at the threshold of perception, the total energy splits in two. If you look at just the electrical component of this curve, you will see that it does not match the total output, and it looks quite different from what the total output would be if there were no drain on it to create and increase the output of the consciousness-component. Hence, if consciousness is a form of energy, observing the shape of the electrical-output curve should indicate the presence of consciousness.

No such difference in slope of electrical output, however, has been detected.

Unfortunately, this does not prove that consciousness is not energy, for two reasons: (1) The actual amount of energy used up in the transformation to consciousness might be undetectably small, so that as far as our instruments are concerned, there would be no difference in the electrical output below and above the threshold of consciousness. (2) In actual practice, energy spreads itself all over the brain in any act that the brain performs, and so isolating a single nerve (or a small group of them) and measuring just their electrical output (even though this nerve or these nerves are associated with the consciousness in question, as the nerves in the visual centers, for instance) might not give an accurate picture of what is going on even electrically in the stimulus and output of the nerves involved in a given act of consciousness.

Still, it would seem reasonable, if the nerves in question are the ones involved in the act of consciousness in question, that there would be *some* detectable difference in their electrical outputs as the threshold is reached. It would be far-fetched to assume that the drain on them was so small as not to be able to be picked up at all by the sensitive probes we have, or that the energy was so diffused that the nerves obviously most responsible for the consciousness in question would show no difference at all at the threshold of consciousness. It is just that you can't rule out these two possibilities, and hence, the undetectability of a difference in the nerve-output does not *prove* that the consciousness associated with the nerve-output is not a form of energy. It doesn't *prove* it, but it *strongly indicates* it.

Put it this way: if such a difference in the electrical curve were detected at the threshold of consciousness, this would disprove that consciousness is not a form of energy. What other explanation could there be for such a change in slope except that energy was being drained off into another form (which we don't happen to detect for lack of instruments)?

And in fact we don't need conclusive proof here for our purposes, since this is only one of two lines of reasoning that lead in the same direction. According to the first line of reasoning, if consciousness were a form of energy, then it couldn't "duplicate" itself, because it wouldn't be able to give itself the extra energy it would need to do so. By the line of reasoning we just got through, if consciousness were a form of energy, it should be at least indirectly detectable, and we can spell out how; but there has been no hint of any ability to detect it in this way; the curve of the electrical output of the nerves behaves as if it is the total output of the nerves both below, at, and above the threshold of consciousness—which makes sense if consciousness is not a form of energy at all.

Hence, we can draw the following conclusion:

Conclusion 1: The act of consciousness is a spiritual act, not limited in quantity as energy is.

The reason, of course, why you get into a contradiction when trying to say "how many" acts there are is the same reason you would get into a contradiction if you try to say "how much" there is of a spiritual act, because a spiritual act doesn't have a quantity. We have, perhaps, less of a problem with the latter lack of quantity, but it is difficult for us to conceive that you can't *count* spiritual acts either. But this is not totally outside our experience. If you and I are thinking that two and two are four, how many ideas "two and two are four" are there? One or two? Either answer will do. That is, when I "share my thoughts" with you, you don't get part of them, and they don't get divided; each thought is now both two and one.

It is not obvious whether consciousness is a characteristic of spirituality or not, so that any being which is spiritual would *ipso facto* be conscious. All we have established above is that spirituality is

necessary for consciousness, not that it is sufficient. I must confess I know no way to prove that spirituality entails consciousness, though it is a pretty safe bet, I would think. First of all, if a spiritual being doesn't have a quantity, then why wouldn't it be a multiple unit in one single act? Secondly, we know from what was said about evolution earlier that God must be conscious of the universe he creates; and so the greatest spirit is an act of consciousness, and so presumably a multiple unit in one act. ¹⁰ So we have the two extremes

¹⁰Of course, this would imply that Christians call God a Trinity because God is spiritual, not because of anything unique about him. What the Trinity means is (a) that (as the Nicene Creed says) the Father, the Son, and the Holy Spirit are "one and the same reality," and that (b) the Father is in some sense not the Son or the Holy Spirit, and the same goes for each of the other "Persons."

In fact, St. Thomas used the analogy of consciousness to talk about the Trinity, saying that God is the act of knowing himself. The Father is the knower, the Son the known, and the Spirit the knowing (the relation between the subject and object, or the Father and the Son). Since what the Father knows is himself, then the Son (the known) is the Father, and since the Father is the act of knowing, then the Father is also the Holy Spirit. In my terms, the analogy would be more like one of the Persons' being the "knowing," another being the "knowing that I know," and the third the "knowing that I know that I know."

But since "I know that I know" can be said truly as many times as you want, then why is God called just a Trinity and not a "quaternity" or some other number? Because Jesus referred to the Father, the Son, and the Spirit, and did not give God any other names. Quite possibly these "reduplications" of God are the ones that are relevant to Jesus as the God-man and the social person of those who share God's life. If this is true, then there would be other ways of considering God such that he would be not just a Trinity, but a "multiplunity."

For instance, we established in the discussion on evolution at the end of the preceding chapter that God knows the universe somehow or other; so the knowledge analogy (with its multiple "reduplications") can work. And one could say that each of us is present to him as one of his "reduplications" of himself, with the form that equals the whole of our intelligibility (including, of course, all our past, present, and future as eternally "present"—in the sense of not absent—to him).

This knowledge of us, of course, is different from the life of grace (his life) which

of spirituality being conscious: God and animals or at least human beings; and so there is really no reason why pure finite spirits like angels wouldn't be conscious also.

Having established that a conscious act is spiritual, then we can draw the following conclusion with respect to the faculty of consciousness:

Conclusion 2: The faculty of consciousness must be organized with a basically spiritual act.

I say "basically" spiritual for two reasons: (1) As we will see very shortly, and as I have mentioned already, sensation is a spiritual act that has as one of its "reduplications" an act with a quantity or a form of energy, so that it is *basically* spiritual but is *also* in the same act a form of energy. This would imply that the way the faculty of sensation is organized could be similar. (2) The mere fact of organizing parts of a *body* in such a way that the organized subsystem has definite instabilities and its own properties implies that the unifying activity itself must be unstable in some way, which in turn implies a discrepancy between the form of the activity and its *quantity*. Hence, there has to be *some* quantitative dimension about a *faculty* of consciousness; but as a faculty of *consciousness* it also has to be spiritual, or the part of the body could not produce an act (especially as a property) infinitely beyond itself.

we share; that is a way that he imparts his spiritual act to *us*, more or less, I suppose, as I share an idea with you, so that your mind now acts as my mind does, while my act loses nothing of what it had originally.

As to how God can know the universe without being affected by it, he knows it (as St. Thomas said) by knowing himself as the cause of each finite being he creates (accounts for the finiteness of)—as well as all of them together.

But if the faculty is organized with an act which is spiritual, even if it contains a "reduplication" with a quantity, then this says something about the soul of a conscious body:

Conclusion 3: The soul of a conscious body must be basically spiritual.

Since the unifying energy of the living body builds the faculties in the first place, then it can't have them organized with a sub-unification infinitely beyond itself. Therefore, the soul of such a body is at least on the level of the organization of its faculties and of the properties it performs.

Since a spiritual act "duplicates" itself, then it is altogether probable that the act organizing the faculty of consciousness is the soul itself; and this is confirmed by the introspective recognition we have of knowing the "I" in the act of consciousness, in which what we mean by "I" is the whole being, not simply the faculty of consciousness or the conscious act.

What is probably going on here is that, instead of the faculty's producing the act of consciousness, the basically spiritual soul is using the faculty to restrict itself to performing this or that act of consciousness or to shut itself completely off for a time, allowing any other "reduplications" of itself (the ones that deal with regulating the vegetative acts, for instance) to work unconsciously, as in sleep. We saw that the living body works "from the top down" rather than "from the bottom up" as inanimate bodies do; and hence, the faculty, rather than being a facilitator, presumably acts as a restraint on the otherwise superabundant acts of the basically spiritual soul.

This is not to say that the soul *decides* to restrict itself with its quantitative "reduplication" or by using its faculty, as if it could dispense with this restriction if it wanted to. Try keeping yourself

awake when you are very tired if you want to verify this. This restriction is apparently one of the limitations of the embodied spirit that is a spiritual or immaterial soul, and in the latter case, the soul is so restricted by its quantitative "reduplications" and its faculties that it cannot act without using the faculties and "reduplicating" itself as energy.

Before going on to discuss sensation and the immaterial soul at some length, let me draw one more conclusion from the spirituality of consciousness:

Conclusion 4: Computers are not conscious and never will be.

This obviously follows from what was said about consciousness. A computer is a system (not even a body) of switches that are either on or off, and are interconnected with a complicated set of feedback loops, so that the program allows the computer to do some amazing connections among the switches that represent the data that is fed into it.

But of course, it is inanimate in the first place, and not self-sustaining at the high energy level that it exists at when it is working; it has to be plugged in, whereupon it acts because it is seeking its ground state. Secondly, the acts of the switches are purely electrical, and we have absolutely no reason for thinking otherwise; hence no one of them has the remotest chance of knowing what it is doing. Any "self awareness" the computer might be said to have is (a) a mechanical response programmed into it when certain input is fed in (that is, the input simply opens the switch that says, "Display the following on the screen (or into the voice synthesizer): 'Don't bother me now; I'm tired!'"), and (b) in any case is a feedback loop through a number of switches, and does not involve an act that directly "reduplicates" itself, which we saw is necessary for the act to

be conscious. That is, when you put in the command to open your word-processing program, and instead of doing so the computer puts on the screen, "Don't bother me now; I'm tired!" the *computer* didn't know what the message it was reacting to was, let alone what the words it put on the screen meant or even *that* they were a reaction to the input; it is just that your hacker friend put a shell command into your operating system that made the computer open the switches that resulted in the words on the screen rather than open the switches that loaded the word processing program.

We tend to be a little bamboozled by computers, because the commands are, by and large, in English or some kind of jargon that is comprehensible to a person familiar with computers, and it *feels* as if we are communicating with the computer and it is responding to us. But all that is going on is that we are opening and closing switches. That is all the computer can do: open and close switches in the sequence the programmer forces upon it; that is *all* the computer can do. It is just that there are hundreds and hundreds of switches, and they're very tiny.

Of course, the scientistic types will say, "Well, but the nerves in the brain either 'fire' their impulse or they don't; so that's all that's going on in us when we're conscious too." Precisely not. That is only the *energy-dimension* of what is going on in us; if it were *all* that is going on, then we would be conscious, as I said, below as well as above the threshold of perception, and our consciousness wouldn't be able to know what it is doing, as I tried to establish.

I realize that I'm not going to make any converts of the scientistic types by this, because their reaction is bound to be infected with the disease of the present age that I talked about in the first part. "How can you be so sure?" they will say. "Maybe computers aren't conscious *yet*, but who are you to say that some genius can't make a breakthrough so that they will be?"

To this I answer what I answered in the first part. "Who am I? Someone who can be wrong, but who has looked at the relevant evidence and isn't blinded by the dogma that we're just complicated machines. And who are *you* to say without any evidence at all that it's possible for computers to be conscious? Find the *evidence* that refutes the argument given above, so that you have some *reason* for asserting the consciousness of a set of switches, however complex, and I'll listen to your evidence. But as things stand, you have no more evidence for saying that it's possible for machines to be conscious than you have for saying that "someday some genius may come along and make it possible for people to become automobiles." After all, such a thing is conceivable, as that revolting TV show "My mother the car" attests.

No, unless there is something really radically wrong with the evidence above, computers are not and never will be conscious.

Chapter 4

Sensation

am not, then, denying that I might be wrong—far from it. But reasonable people, once they have got beyond the trivial absolute certainties of "There is something" and so on that I discussed in the first section of the first part, base their conclusions on the evidence that presents itself to them, not on that dogmatist's copout, "Well, how do you know that some day someone won't come along and..." This sounds, as I said, like open-mindedness; but it is an excuse for closed-mindedness and a refusal to look at the evidence—and it is a very feeble excuse at that. The fact that theories have been refuted in the past is no *evidence* that a given theory can be refuted in the future; and it is simple laziness to fall back on the fact that people have been wrong in the past as a way of not looking at the evidence (which in our subject is certainly very complex and extremely tricky to get a handle on) and drawing the conclusion that is demanded by the facts we know.

With that said, I will assume that if you are reading this, philosophy hasn't advanced so far that new evidence has destroyed what I have been saying; and so I will now pass on to a discussion of the type of consciousness called "sensation." This is basically the consciousness which is directly and intimately connected with the electrical activity of the nerves in the brain. It includes the acts of seeing, hearing, smelling, tasting, and the various kinds of feeling, as

well as perceiving, imagining, experiencing "pastness," and emoting.

The effect here is (a) that sensation has to be a spiritual act, since it is consciousness, and consciousness cannot be a mere form of energy; but (b) for various reasons, it must also be a form of energy.

Let me give the evidence that (b) is true. We saw in Chapter 2 of Section 3 of the second part that a pure spirit can't change, because there is no way it could be unstable (since instability involves a discrepancy between the form of existence and its quantity). But consciousness clearly changes, especially sense consciousness. In fact, the evidence that consciousness is finite, which we saw in Chapter 3 of the first part was precisely that my consciousness is experienced as changing (being now this form of consciousness and now that one, while remaining my consciousness). Hence, it would seem, consciousness has to be a form of energy.

Secondly, for the same reason that it can't change, a pure spirit can't react to anything outside itself. But sense consciousness, at least, is a *reaction* to the energy impinging on the senses. And it *recognizes* itself as a reaction, or we could not make the distinction we made in Chapter 3 of Section 4 of the first part between the real and the imaginary, where we argued to objects "out there."

Thirdly, as we saw earlier in this section, sensations *vary in degrees of vividness* in a direct relation to the degrees of energy in the input into the sense organs (and of the output of the nerve-energy in the brain). But how could a sound be *consciously perceived as* twice as loud as another sound if the consciousness didn't have a degree to it? But this makes it a form of energy, not a spiritual act.

This last point is a serious difficulty for the conclusion that consciousness is spiritual; because it seems that here we have not only evidence that *implies* that the consciousness is energy, but an actual degree consciously present in the act of consciousness itself. This can't be in an energy-"reduplication" of the act, since it is in the

conscious (and therefore presumably spiritual) dimension of the act that you find the degree of vividness.

But let us assume that there is some answer to this and table this point for the moment, and give the cause of the basic effect (the one that we have indicated earlier in this chapter):

Conclusion 5: Sensation is an act of consciousness which is (a) spiritual, but (b) in one or more of its "reduplications" of itself does so as one or more forms of energy, each with a quantity. These forms of energy are the electro-chemical acts of the brain's nerves.

The reason I say "one or more" energy-reduplications is that the whole *system* of acts of the brain, with many nerves active simultaneously and in coordinated fashion in many different areas, all show up in consciousness as a *single* polymorphous act that is a "perception" or an "image," or even a combination of the two, so that you don't just see a color, but a shaped color at a certain distance from yourself in a complex visual field, in which you hear sounds and feel things, and which you find familiar or not, and toward which at the moment you have a given emotional response. All this is just one act of consciousness; but many, many nerves are being active as its energy-"components."

This seems as if it is a contradiction, not only because one act (the act of consciousness) is simultaneously the whole system of energy-outputs of the nerves in the brain, but because a spiritual act has no quantity and energy has one. How can an act be quantitatively unlimited and limited at the same time? The e answer to both of these difficulties is that a spiritual act (or at any rate an act of consciousness) "duplicates" itself without being more than one act, suspending many "dimensions" or Hegelian

"moments" within itself, each of which is not the same as the others, but is *not* a *part* of the whole act, but rather a different sort of *expression* of the whole act as a whole (just as "I know that" is not a part of my consciousness, but itself in a different sort of expression of itself).

Since the act of consciousness "does itself" many times, there is nothing to prevent *some* of these "times" from having a quantity, because what can do more can do less, and all "having" a quantity means is the act's *not* being any more than a certain amount of itself. That is, in the "reduplication" of itself that is energy, all the act is doing is *refusing* to be any more than this much of itself, not "adding" something different to itself. It is as if you chose to do nothing but breathe for a while and not see or think or talk, and so on; you are simply not doing all you can do at the moment. This is more or less what would be going on if an act of consciousness expressed itself as a form of energy.

Now since the act of consciousness is one act, then *if* one of its reduplications has a quantity, then it would seem that the act could have (as energy) only that one quantity—because a form of energy can't have more than one quantity at once, any more than heat, say, can be two different temperatures at the same time.

But as we can see even with heat, the heat *in a room* can have all sorts of temperatures; or better, an electrical field can have all sorts of degrees of electrical energy in it (this is what a field is, in fact, as we saw in Chapter 4 of Section 1 of the second part), as long as these quantities are *distinguished* somehow from each other, so that the act doesn't have one quantity *in the respect in which* it has a different one.

And since the energy-"dimension" of the act of sense consciousness is the electrical output of the brain's nerves, which are interconnected into a system by the brain waves and so on, then *this*

system of energies presumably is the actual energy-"dimension" of the act of consciousness that is occurring at the time. This would mean that the electrical output of *each* of the nerves is one energy-"reduplication" of the conscious act, and together as a system they form the system of energy-"reduplications" of the one act of consciousness which is the polymorphous act of the way you happen to be conscious at this moment.

Presumably also, the energy-output of each nerve (or perhaps of small clusters of nerves) is the energy-"dimension" of a given form of consciousness. That is, a given nerve in the brain produces a given "dot" of color at a certain location in the visual field of your consciousness, another nerve provides a "dot" of a different color or at a different location, others that of the sound you hear, and so on and so on. The reason this is probably true is that the different stimuli set up different patterns of nerve-firings in the brain, and also different conscious experiences. And, for example, when my dog walks across the grass in my yard, then as I watch, everything in the nerves (as far as we can tell) stays the same except that what corresponds to the patch of tan light coming into my eyes moves across the static background. And this, of course, is what I see.

So we can draw this conclusion as the reasonable one:

Conclusion 6: Each energy-output in the brain above the threshold of perception is the energy-"dimension" of a given form of consciousness; and all of the activities of the nerves acting at a certain time is the energy-"dimension" of the polymorphous single act of consciousness (the perception and/or image) that is occurring at that time.

Notice that what this means is that the act of consciousness is *one* and the same act as each and all of the energies of the nerves in the

brain. They don't "produce" it as an effect of themselves (they couldn't, because it is infinitely beyond any and all of them); they *are* one of its many "expressions" of itself; each of them is and all of them are. So there is no "union" of the energy and the spiritual act of consciousness (as if there were two somethings connected somehow); there is an *identity* of the energy and the spiritual act. The various forms of energy in the brain may be interrelated *among themselves* in the brain waves; but they are *not* interrelated with the act of consciousness, because the act of consciousness *is* the energy—or rather, to put the horse before the cart as it should be, the energy is the act of consciousness expressing itself ("reduplicating" itself) to a limited degree. Just as "I know that" and "I know" are one and the same act, so the conscious seeing of a color and the energy of the proper nerve is one and the same act.

This means that we don't have the Platonic—or rather Cartesian—problem of how the "ghost" can be affected by what is going on in the "machine." Those who have held that consciousness (or the mind) is spiritual have always had the problem of how the physical activity of the body (the senses and so on) can effect a change in what is infinitely greater than it. Descartes "solved" the problem by having the stimuli go to the base of the brain and make the pineal gland vibrate more or less the way the phonograph needle is made to vibrate by the grooves in the record; and this vibration was picked up by the mind the way the cartridge in your phonograph converts the mechanical motion to electricity and then sound from the speakers. But of course, as so many have pointed out, all this does is localize the impossibility; it doesn't solve it. If what is mechanical is infinitely beneath spirit, vibrations of the pineal gland, which are mechanical, are also infinitely beneath it.

But in the view I gave above, the "ghost" is the "machine." The energy of the nerves in the brain isn't something that *causes* the act

of consciousness, it is the energy-"dimension" of the act of consciousness *itself*, so that the conscious act *is actually altered* by the energy impinging on the sense organs and carried up to the brain, but it is altered *because it is also energy*, not because energy "does something" to what is spiritual and infinitely beyond it. The difference is subtle, I suppose; but it is all the difference in the world.¹¹

The Catholic Church also teaches that all those who believe form the "mystical body" of Christ, a kind of social person. The idea here is this: Since Christ is the human expression of the life of God, then anyone who shares the life of grace—God's own life—is a human expression of the life of God. But there is only one human expression of the life of God, because God himself is one. Hence, each of us is Christ, and all of us are Christ, in an even more intimate way than that cells in a body are somehow the body, since their life is the body's life. So we form that social person who is the "completion," somehow, of the individual Jesus, and are—and each of us is—the human expression of God's own life. We are God, as Hegel would say, in his "otherness." (But this is not to be taken quite as Hegel meant it, though it is very close to it.)

Also, since one and the same thing, if it is spiritual, can have many material expressions of the different "reduplications" of the one act, then if the Eucharistic "bread" is in fact organized with the same form of unifying energy as the body of Jesus, while the appearances of bread are maintained (i.e. Jesus chooses to express himself now by "doing" only what bread does when he takes over what used to be bread), then we can see that there is no contradiction in saying that each wafer is the

¹¹On the assumption that the Incarnation of Jesus was in fact God's "becoming" human while still remaining God, we can call upon sensation and the nerve-energy of the brain as a pretty good analogy. What it implies is that God is the body in question; it is just an expression (a word, if you will) of the Infinite spiritual act. And the fact that this body is a complex system, like the system of many energies in the brain, each of which is an expression of God, and all of which are the one expression of God. And so when Jesus suffers as a human being, it is in fact God who suffers, just as when the nerves in the brain are activated, the consciousness takes on different forms corresponding to the different locations and the degree of the energy in them. These are expressions of the one act of consciousness, just as everything that Jesus does is the expression of the one God.

This theory I have advanced, then, explains many peculiarities about sensation. First of all, why we can be unconscious when the energy in the brain is below the threshold of perception is explained by the fact that the act organizing the faculty (and the soul of the sentient body also, as we saw) is simultaneously a spiritual act that has a form of energy as one of its "reduplications." For reasons of survival and optimal operation of the body, the act acts *only* as a form of energy when the input is low enough, so that you aren't bombarded with enormous amounts of irrelevant information and can cope better with what is important to you as a body at the moment. This enables your consciousness to "shut down" and for you to close yourself inside yourself for a time, so that your body can take care of internal repairs and housekeeping without having to respond to the external world—while at the same time being able to respond to a strong stimulus, which could signal danger.

Secondly, it explains how consciousness can be affected by energy from outside. Each form of the polymorphous act is the form associated with a given nerve (or nerve-cluster) in the brain—or, as we will see, some other energy-act integrating these nerves; and the nerves put out their energy as they are stimulated by energy coming into them from the sense organs. As different energy comes in, different nerves in the brain are connected to it; and so different forms appear in the polymorphous act of consciousness, because

body of Christ, and so is each other one, and so are all of them just the one body of Christ, which expresses itself multiple times over. To put it another way, this now is what Jesus chooses to look like. (So to ask to see Jesus "in" the wafer is nonsense. He *is* the wafer.) The fact that this one body can be many wafers at once is because the basic act is spiritual.

All this is not by way of "proving" that Catholic teaching is true; all it says is that there is no necessary contradiction in it, and so if you believe it, you are not forcing yourself to believe nonsense.

^{4:} Sensation

these energies are the energy-"dimension" of that act.

Thirdly, this theory explains, of course, why when the threshold of perception is reached, no energy "drains off" out of the electrical activity of the nerves. The spiritual "dimension" of the act, as spiritual, has no quantity at all, and so it need not take anything from the energy (which, after all, is only a limited expression of the spiritual act, and not something that produces it).

But we are still faced with the difficulty of the degrees of conscious vividness, as when a sound sounds twice as loud as the one heard just before it. Can this theory account for this? There is at least a way out.

If we note that the *conscious* awareness of things like "twice as loud," "three times as bright," and so on is very very rough, then there is a hint that perhaps these "quantities" inside the consciousness itself are only *forms* that *refer to* quantities of the energy "out there" and *report* differences in that energy that happen to be in themselves quantitative.

That is, in the first place, you can't actually set up a scale in your consciousness by which you could hope to measure with any accuracy the actual degrees of the stimulus; the best you can do is that (a) there is a difference between them, (b) the difference is one of degree, not type of act, and (c) it is more or less in this range (twice as loud).

Now it is true that experimenters have come up with pretty accurate correlations between the actual degrees of the stimulating energy and degrees of the differences as perceived (and have noted, as Weber and Fechner and then S. S. Stevens have done, that the correlation is logarithmic or exponential), but these findings are based on a large number of subjects making subjective judgments, and are averages of some rather disparate data. When a given subject is given the same sound as one he heard before, for instance, he does

not always give it the same number as he gave it the last time. This is perfectly consistent with the fact that all we can come up with is something that more or less reports the degree of the stimulating energy; if you take large numbers of these "more or lesses" and average them out, then the guesses that are greater will tend to be balanced by guesses that are too little, and the set of guesses will approach reasonable accuracy.

So let us draw the following conclusion:

Conclusion 7: The apparent degree of vividness in consciousness is actually a form of consciousness that in itself is not a degree, but which is caused by the degree of the stimulating energy, and hence reports it.

That is, the consciousness of the sound as "twice as loud" as the previous one is simply an auditory consciousness that has a different form from the previous one, though it is the same in all the other forms of this polymorphous act. This particular form, however, does not "report" (i.e. respond to) the pitch or timbre of the sound coming in, but to the loudness, which we know varies in degree; and hence it "tells us" of a difference in degree. But the perceived difference in loudness is not itself a difference in "degree of perceiving," (because the perception of a soft or a loud sound is equally clear), but a difference in perception that speaks about a difference in degree of the sound "out there."

This might be confirmed by the fact that what we perceive as obviously different qualities are in fact different quantities "out there." For example, the different hues we see (red, green, etc.) are caused by different wave lengths of the same basic energy; and even light and radiant heat are just different wave lengths of the same electromagnetic energy. Similarly, the pitch of sound is a difference

in the frequency of the sound-pulses, and that also is in fact a difference in quantity. So it is quite reasonable to say that even when we seem to perceive with different "degrees" of perception (such as loudness or brightness) these also are different forms that now report explicitly the quantities in question (amplitude of the wave in this case). Perhaps we can only perceive *one* "set of forms" (degrees of loudness) as reporting the quantity, and the other quantities are perceived as different qualities.

This hypothesis could be tested in the following way. Since quantities are variations in what is basically the same quality, then *perceived* quantities would be variations in the same perceived quality. But if these "perceived quantities" are not actually quantities of the perceptions, but themselves forms of consciousness, on an equal footing with the "qualities" they are supposed to be the quantities of, it would seem that it ought to be possible to turn the tables and make what was first considered the "qualities" be variations on what was perceived as the "quantity."

That is, it should be possible to set up an experiment such that the quantities of a certain set of perceivable qualities is held constant, and only what would ordinarily be perceived as different forms of energy varies. You could then ask the subjects how much "more" of a generic type of perceived quality one of these forms is than another; and the hypothesis predicts that you would come up with answers analogous to the kind of thing S. S. Stevens got in talking about "degrees" of loudness, volume, density, and so on of sound.

I tried a not carefully controlled experiment of this type, and got results that seemed to verify the hypothesis. I chose a number of color cards, trying to keep them of equal saturation (i.e. "pureness," or lack of mixture of white or black in them) and brightness and so on; and I held the green one up to my class and told them to consider that card the number 5. I then asked them to write down

the numbers they would put to each of the other cards I held up, in relation to how much "more or less of a color" it seemed to them as in relation to the green card. I got a set of numbers that rated red at the low end and blue at the high end, with ambiguity with respect to purple, some of them making it less than red and some more than blue.

Now this study is flawed for several reasons, I realize. First of all, people are apt to know the spectrum and how the colors arrange themselves in it, and this would bias what numbers they would use. Secondly, the colors were not in fact perfectly equal as stimuli in every respect except hue. Thirdly, by *my* picking out green and giving it the "middle" number, I was creating a bias in the students' minds, hinting at the spectrum.

Still, it was possible for the students to put numbers on hue as being "more or less of a color," which was all I needed for my purposes. I did not need to know which number one would put on orange, say, if one were making a perfectly unbiased study of "degrees of hue"; Stevens, for instance, has the subjects put any number they want on the first item shown (which is not the same item for different subjects) and then rate all the rest in relation to that one; and then with fairly complicated mathematics, he reduces the different ratings of different people to a common scale. But as I say, it was not necessary for me to do this merely to find out whether people would have trouble comparing red and blue as two different degrees of something.

Secondly, as confirmation that we can put numbers on what is known as qualitatively different, there is the fact that we are doing this all the time whenever we buy things. If you have enough money for dinner or for the symphony, then in choosing one over the other, you are saying that listening to music is a greater experience for you than eating dinner; and you can even say how much, when it comes

to haggling over the price. This is a way of putting quantities on what are known to be qualities, and regarding qualitatively different *experiences* as different "degrees" of some abstraction called "satisfaction." There is, of course, no unitary consciousness called "satisfaction," of which various pleasures like that of reading this book or of helping a sick friend or of eating an Oreo cookie are simply degrees. The mistake of Jeremy Bentham and the Utilitarians (not to mention David Hume, who started all of this) was to assume that since we could compare apples and oranges as "more or less desirable," therefore they *were* objectively more or less desirable, and you could work out a calculus of "objective goods" which would form the basis of ethics. It has failed, because "desirability" is not really a quality of which various pleasures are quantities, any more than saturation is a quality of which various hues are quantities.

But the point here is that what the "quantity of the perception" actually is is the *perception of the quantity*. It is not *itself* a quantity of the spiritual act, but a *form* that *responds to* a quantity of the *object*, and hence there is no reason to say that perceptions, which vary in vividness, actually vary in degree.¹²

So there is no insuperable objection against the theory that sense consciousness is in itself a spiritual act which "reduplicates" itself in one or a system of quantitatively limited acts, while remaining just the one act.

¹²It is also true, of course, that this pseudo-limitation of the spiritual aspect of the act is due to the fact that in another "dimension" of itself it also has a quantity, since the energy-dimension is not something attached to it, but is an expression of the (basically spiritual) act itself. There is not a system of acts here, however tightly knit, but one and the same act, which is simultaneously both spiritual and energy. So it is reasonable to suppose that even the spiritual dimension of the act is somehow "infected" by its energy dimension, even though it is in itself infinitely beyond it.

Chapter 5

The sense faculty

et me now take a term from Scholasticism which refers to what we have been talking about, but which means something a bit different.

An *immaterial* act is an act which is in itself spiritual, but cannot act unless it also "reduplicates" itself as a form of energy or system of energies.

The difference between this and a spiritual act is that a spiritual act is totally free of quantity, in the sense that, even if it does "reduplicate" itself in this way, it *need* not do that in order to be able to act. In other words, a spiritual act *can* act without any quantity at all. For instance, Gabriel—supposing there are such things as angels—could, presumably, limit himself quantitatively (in order to be a real body when he appeared to Mary, for instance); but in general, he would not be doing such a thing and would simply be acting spiritually.

The human soul, as I will try to prove later, performs an act which is spiritual and doesn't have an energy-"dimension" to it at all; and hence it can act without "reduplicating" itself as energy; but it naturally does so anyway. This is a little different from the situation of an angel who would *decide* to do so. But since the human soul is *capable* of acting in a spiritual and not immaterial way (even though

in other acts which belong to its nature, it acts in an immaterial way), then it deserves the name "spiritual" and not "immaterial." "Immaterial" only applies to those acts which by their nature *must* "reduplicate" themselves as energy.

The Scholastics, who gave me the term, used it to refer to the "semi-spirituality" of sensation and of the souls of non-intellectual animals: to what I refer to by the same term. But what they meant by it was an act which didn't actually *have* matter (which, remember, seems in one sense to refer to the quantity of the unifying energy and in another to the material the body is made up of) in that when you see a rock, there isn't a rock in your head—but which are "bound by the *conditions* of matter," such as individuality and location in space and time. An act for them is spiritual if it is not (a) individual but universal, as "dog" does not refer to any individual dog, and (b) not localizable, as "dog" is not here or now as such; it is the individual which exists at some time or place.

There were, of course individual spiritual acts for the Scholastics, like God and the spirits; but in the case of the spirits, the individual "exhausts the species," so that Gabriel is all there is to "Gabrielness," and is a different *form of activity* from Raphael or any other angel (something I would agree with, by the way); and so he is a kind of "universal" and is outside time and place (something I would also agree with, since time and place imply bodies). There is also a distinction they make between "individuation within the species" which matter causes and "individuality" which can depend in a spirit on choices.

At any rate, immaterial acts for the Scholastic "partake" of spirituality, because they aren't actually acts organizing or activating any material; but they also "partake" of materiality, because they deal with the individual and are themselves individual and temporal and have spatial dimensions to them.

The difference in my view is that the *form* of sense consciousness that is aware of space *is not itself spatial*, any more than those forms of consciousness that report "twice as loud as" are in fact twice as much as the consciousness of what is half as loud. So the fact that I *see* a spatial object does not mean that my act of *consciousness* is not spiritual. Nor does my consciousness of an individual object make my consciousness "individuated" as if it had the conditions of "matter"; because I can know God, who is an individual object, but I must do this with a *spiritual* act of knowing this object because I can't perceive him sensibly. But the Scholastics would certainly not want to admit that all our knowledge of God has to be abstract and universal, or they rule out what they consider the greatest knowledge of all: the Beatific Vision, which even for them is a direct intellectual "intuition" (a "perception" by the intellect itself) of God.

Hence, the immateriality as opposed to the spirituality of sensation must lie elsewhere. I am not trying to "save" the term, but our investigation has revealed that sensation seems definitely to be both a form of energy and spiritual; and so this "semi-spirituality" connected with sensation must be that it is constrained to "add" this energy-"dimension" (or dimensions) to itself in order to be able to act.

And this is consistent with what we said about life in the first chapter of this part, where it is in control of itself and is not controlled by its quantity. There, if you will recall, we predicted that as you go higher in the scale of living things, you will be forced to conclude that the being is freer and freer of its quantity.

Here, then, we have, not a being which rises *above* its quantity to a quantity *greater* than it "should" have, but a being which is in itself not quantified at all—but which is not so free of quantity that it can actually express itself in all its spiritual fullness, and must "add" a quantitative "dimension" to itself in order to be itself. This is what

you would expect of the next higher stage of embodied life, if life is what we defined it to be. So the theory hangs together so far.

But why not call the animal spiritual, and say that it doesn't really *have* to "reduplicate" itself as energy when it acts spiritually?

The answer is that you would be asserting then that it is a higher type of being than an immaterial being; and one should not assume that things are greater if lesser explanations will do the job, as Occam's "Razor" says.

In other words, if you are going to say that a being is spiritual and not immaterial, then you had better be ready to give evidence for this. How would you do so? To show that a being *can* do a certain thing, you would have to show that at some time it *does* do so; if it *never* does such an act, then the presumption is that it never does so because it is incapable of it. Hence, only the beings that we can show do in fact perform an act that has *no* energy-"dimension" to it can be asserted to be spiritual. So far, no one has been able to show this of any animal except the human one. ¹³

Hence, we are able to draw the following conclusion:

Conclusion 8: The faculty of a conscious body that never performs more than an immaterial act must be itself organized with an immaterial act.

That is, on the assumption that animals' consciousness has always the energy-"dimension" of the nerves to it (which assumption there

¹³There have been attempts to do so, notably with chimpanzees; but I will discuss these more at length when I discuss thinking, and we can be clear about why thinking cannot be an immaterial act.

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is no solid evidence to challenge), then the faculty of consciousness of the animal is immaterial.

It also follows that the faculty of *sense* consciousness of human beings is organized immaterially. That is, the act organizing the nervous system and the sense-receptors is not simply a form of energy (because it produces as well the act of consciousness), but (also) *is* a form of energy (since it organizes a definite part of the body and can turn consciousness on and off).

This would seem to imply that any "faculty" of a spiritual act could not organize parts of the body, because that would give it an energy-"dimension," and make it immaterial, not spiritual. This is to some extent true. A spiritual act *could* also organize body parts, because what can do more can do less, and it *can* "reduplicate" itself as energy; but it wouldn't have to do this in order to act—and so you wouldn't expect to find an organ or system for spiritual consciousness. And indeed you don't, in the human being, as we will see later; there is only the pseudo-organ of the *spiritual* "dimension" of sensation that allows for there being a *faculty* of spiritual activity. But let that ride for now.

Of course, we can also say this:

Conclusion 9: If a body is conscious but never performs an act that is more than immaterial, it has an immaterial soul.

If it is conscious, the body must be organized with *at least* an immaterial soul, or it performs acts that are infinitely beyond it. But if it never performs more than an immaterial act, this is in all probability due to the fact that it can't, which means that the soul is *at most* immaterial.

Let me then make the following definition:

An animal is a living body whose soul is immaterial.

This is different from the traditional definition of the term, and closer to what we mean by it in everyday language. We distinguish "animals" from "people," and think that human beings are in a class by themselves. And we are right, as I will try to show in the next section.

For those who don't subscribe to that common view, then obviously human beings are just the most complex animals we know about, and not different from animals in a way analogous to how animals are different from plants. At best, we would be what Aristotle called "thinking animals." Of course, if we are not essentially and radically different from animals, then we too have nothing but immaterial souls.

Hence, I think the definition above is justified, whether or not you hold that "brute animals" (as the Scholastics call them) are different from and essentially inferior to humans. If you think they are, then it makes no more sense to call humans "animals" with a qualification than it does to call animals "sentient plants"; because animals, after all, have all the vegetative acts that plants do, even if the *way* they perform these functions is distinctive. And, of course, if you don't hold that humans are different essentially from animals, then all there are are animals, and we are one species among many.

Implied in the immateriality of the soul is, of course, the following:

Conclusion 10: An immaterial soul does not survive the death of the body.

The reason for this is the nature of immateriality as opposed to spirituality. If something is immaterial and not spiritual, then it can't

even exercise its spiritual act without its energy-"dimension"; and this would also apply to the soul itself. It can't act, presumably, without *also* being a form of energy organizing a body; and this means that when the body is not being organized as a unit any more, its soul is no longer active at all, any more than when a salt molecule breaks up into sodium and chlorine, the unifying energy of "saltness" "goes somewhere" into "salt heaven"; or when a tree dies, its soul continues existing in "tree heaven." No, all it means is that when these bodies stop being organized in this way they aren't organized in this way any more. The unifying energy is just *the interaction of the parts*, after all; and when the parts are no longer interacting, they just aren't interacting; the interaction doesn't "go somewhere."

So there's no "doggie heaven." Your dog is not a soul that's got into a body and is driving it around as if it were a car. Your dog is a *body* whose parts are *interacting* in a way that is in itself spiritual but is *also* and must be the form of energy of the interaction itself; and when the parts stop acting that way, then what that means is that *there is no more interaction*, not that the interaction "leaves" the body.¹⁴

¹⁴I should point out here that in the real world, things may not be as bleak for dogs and such as this argument indicates. *Our* souls are spiritual, as I will try to prove later, and they also survive the death of the body (which doesn't mean, of course, that they "go somewhere"; as spiritual, they will not be in time or position). But some of the arguments that lead to the conclusion that our souls are in fact immortal also imply that our non-self-contradictory desires can be fulfilled. People do love animals, with a love that is indistinguishable from our love for other humans; and this longing for the existence of the beloved (as Gabriel Marcel talked about) means frustration if it can't be fulfilled. And I think that Catholic teaching implies that, just as we will be embodied forever and will not forever exist as disembodied spirits, so the animals we love (not just their souls, but the whole animal) will be "brought back" to spend eternity with us. Otherwise, the death of a beloved dog would be much more of a tragedy than the death of a wife or a son, because it would imply in the one case

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There is another reasonable conclusion one can draw about an immaterial soul:

Conclusion 11: An animal does not *consciously* control its actions; the consciousness is merely an epiphenomenon of the energy-"dimension" of the act.

The reasons for this conclusion are again theoretical and empirical. First, if the conscious aspect of the act were to control the energy-"dimension," it would have to be free of it, because the energy is already controlled by the energy that is throwing it into instability and making the nerve "fire." Secondly, animals give no evidence of being able to concentrate; their attention seems to be drawn by the strongest stimulus or drive operating at the moment, and there doesn't seem to be any case observed where an animal *deliberately* blocks out distractions in order to pursue some goal which is not emotionally attractive.

The empirical data is once again very tentative, because it deals with a negative, and animals' behavior is open to several interpretations, especially when drives like the hunger drive or the sex drive are operating. Nevertheless, it seems that since the conscious act is intrinsically tied to the energy in the brain, and since the function of this is to allow the animal to react consciously to the world around it (i.e. to allow *consciousness* to change *in response to* energy), then the conclusion is, as I say, the most reasonable one.

But this implies that we should not think of the relation between animals' consciousness and behavior by analogy with our own, as if

non-existence, and in the other, the fulfillment chosen, not extinction at all.

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Walt Disney were right. When we act, we act *consciously for a motive*, even when that motive may be the emotional attraction or repulsion we have toward whatever it is that we are considering. But an animal cannot do this, if the conclusion above is true.

That is, when the sheep sees the wolf and runs away in terror, the sheep *runs and is afraid*; it does *not* run in any sense *because* it is afraid. The fear is just the conscious "dimension" of the "program" of avoidance of that shape of object, and it provides no motivating force for the animal's "choice" at all. The animal does not run because it is afraid any more than a computer programmed to do the same thing would move away because it is afraid. Of course, the computer cannot feel afraid, as we said above; but the fear in the sheep *adds nothing* to the energy in the sheep's "avoidance program," in the sense that it does not change the energy-"dimension" of itself in any way from what it would have been if the conscious "dimension" were not there.

This is to some extent confirmed by what we sometimes do under great stress, when we engage in very complicated behavior but are not conscious at all of what we are doing. In us, of course, consciousness has a hand in what the behavior will be; and so under extreme stress, as I mentioned earlier, consciousness just shuts down altogether, and the energy in the "program" in question is allowed to operate without its conscious "dimension." So here we have very complex behavior (I mentioned the example of my brother playing baseball unconsciously) without consciousness—and behavior indistinguishable (except that it is apt to be more efficient) from behavior when there is consciousness.

This of itself does not prove that the animal's consciousness has no role in the acts it performs, but it is suggestive that the behavior doesn't need the consciousness in order to act.

If, then, it is true that the consciousness of the animal does not

enter into its behavior, why is the animal conscious? Of course, since the behavior would be the same on this hypothesis whether the animal is conscious or not, we must once again raise the issue of whether the animal is conscious at all. But since we are conscious at the sense level (especially in dreams, for instance), and since our organ of consciousness is basically the same as animals', then presumably they have consciousness also.

But I think that there is no *need* for animals to be conscious; it is just another of those gratuitous gifts living beings have from their Creator. By it the outside world becomes present to the animal—but not *as* outside and not to the animal *as such*. That is, it requires thinking and understanding *relationships*, as we saw in Chapter 4 of Section 5 of the first part, to be able (a) to make the distinction between subject and object, and (b) to recognize the subject as something beyond the actual act of consciousness. Hence, the animal is not aware that (a) it (b) is reacting (c) to something other than itself; the consciousness just *is*; it doesn't *mean anything* to the animal, but only to an outside human observer, who can imagine the animal's consciousness and understand what it deals with.

For instance—and this might be the best way to illustrate my point—an animal cannot *suffer* pain. An animal can *feel* pain, but it is just a sensation; it itself has no "good" or "bad" connotation for the animal. The only way the pain could be suffered—recognized as "bad"—would be for the animal to compare this sensation with other sensations in the light of what it thinks it "ought" to be feeling. But to it, the pain just happens.

True, in the animal, pain is the sensation that is connected with various avoidance "programs," so that it does tend to avoid situations that it (in fact) associates with pain. But again, this avoidance is *not because* it associates the situation with pain; it is that the situation has got programmed in as input to the avoidance "program." Thus,

when you train your dog not to defecate in the house by slapping its behind with a rolled up newspaper, it isn't the *sensation* that motivates the dog to go outside to defecate, it is that you have set up a connection between defecating in the house and one of those inputs to be avoided; and *this* has a certain conscious aspect connected with it.

But when we feel sorry for animals in pain, we are projecting onto them our own attitude toward pain, which is something they don't have. This is not, of course, to say that we should be cruel to animals, for two reasons: First, because the "programs" that have pain for their consciousness indicate that what you would be doing to the animal is in general contrary to its nature; and even if this doesn't imply that the animal has rights, still to violate a nature without a good reason puts you at odds with the world you live in and is not consistent with being yourself. Secondly, since we do share the animals' feelings, then even if the *animal* can't recognize the pain as bad, the *person* who is being cruel can, and is enjoying creating the sensation in another being which he himself would hate if someone did it to him; and so the cruel person is contradicting his ability to sympathize and empathize, which is violating a rather important aspect of himself.

Still, if an animal is in pain for no reason we are responsible for, or even if we have a good reason for causing pain in the animal, we don't need to sympathize with it as if it were a person suffering the pain; we are observing or producing an intense sensation, that is all; the animal is not suffering.

We can see this by something I mentioned in discussing the problem of evil in Chapter 12 of Section 5 of the first part. What a person experiences as pain or pleasure is not necessarily what the automatic, built-in "programs" would lead you to expect. The automatically unpleasant taste of liquor is regarded after "cultivating

the taste" as pleasant, as is the sensation of being poisoned, which is the consciousness of getting drunk. Art connoisseurs regard as beautiful paintings which ordinary untrained folk find repugnant, like the "drip" paintings of Jackson Pollock. People riding on a roller coaster or watching horror movies obviously are enjoying the sensation of terror. And so on. The sensation in itself is simply a sensation; whether it is a pleasure or pain depends on whether you regard it as reporting something that is consistent or inconsistent with what you consider yourself to be—and hence as something which you *think* (not feel) is attractive or repulsive.

So much, then, for the role of sense consciousness in general in the life of the animal. I want now to make a few remarks about aspects of the sense faculty and how they function; and I will group these around what the Scholastics, following Aristotle, call the five "external senses" and the four "internal senses." Since for the Scholastics each of these dealt with a distinct type of act, then each was a distinct faculty. For me, since (a) the act of sense-consciousness is one act, including in its "reduplications" of itself the forms of all these "acts," and (b) one system and one major organ (the brain) is the part of the body that performs the acts, then all of these "senses" are just aspects of the one faculty, the sense faculty.

Hence, for me, there are not nine "senses," but five types of *input* into the faculty: five *ways* in which our sense faculty can be affected by energy outside the faculty; and there are four basic *processing* functions by which this information is organized, stored, and used.

As I said, the major organ in this faculty is the brain, because it is in the brain alone that consciousness occurs, and the brain is where all the incoming information is processed.

Let me first remark that the brain, in its energy-activity, functions very much like a very complex computer. The nerves are either active and putting out energy (and when they do, they put out all they

can), or they are quiescent and not acting, just as the electronic switches in a computer are either open or closed. And, as was seen as early in computer history as Norbert Wiener, there is a very strong analogy between what the computer does and how things are processed in the brain. We will discuss later "artificial intelligence," or whether a computer can be made to think or to mimic what we do in thinking; but for now, it seems to me probably true that it is in principle possible to build a computer that would mimic what an *animal* does, since as I said above, the animal's consciousness does not have a role to play in what its brain is actually doing, and is only an epiphenomenon of the brain's electrical activity.

I am not going to go into detail on any of the various functions of this faculty, because they belong to the realm of experimental psychology rather than philosophy. I will simply make a few philosophical reflections that I think are relevant.

First, why just five types of input into the brain, when it is now known that we have many different "senses" that are lumped together under touch, for instance? To answer this, I can begin by saying that Aristotle also knew that touch was actually many "senses," but he called it one all the same.

And the reason is that the five inputs are five different *sorts of ways* one can be affected by another being so as to be able to perceive it. You can be affected by it if you are in contact with it, interact chemically with it, are acted on by the medium between you and it, are affected by an *act* at a distance, or are affected by the *object* at a distance. What these mean will be clearer as we enumerate them; but other than these, there is no other sort of conscious contact you can have with anything.

Lumped under *touch* are the various ways of being affected by something *in contact with the faculty*—specifically, of course, with the receptor nerves. Under this type of input, we find pressure, pain,

heat, cold, balance, the "muscular sense" by which we are aware of the position of the parts of the body, and so on. One of the many reasons I don't like the term "external senses" is that it seems to imply that they react to what it outside the body; but touch also reacts to what is going on *within* the body, though outside the nervous system, of course. All of the various inputs I have enumerated above have their own receptors, so that heat, for instance, is felt with a different set of nerves from cold or pressure.

Aristotle mentions that all animals have the sense of touch, though not all have other senses, like sight. Presumably, at least the inputs included under touch would be required if you are an animal, because you have to react to the environment somehow, and if you are stuck in one place, like a barnacle or a sponge, seeing or hearing something you can't get away from would be a gratuitous cruelty rather than a benefit.

I would think that all animals would also have the input of *taste*, which reacts to the *chemical composition* of bodies being ingested as food. If there weren't any taste, then poison could be taken in as easily as what is beneficial.

Psychologists note that the consciousness we have of the taste of something includes input from the nasal nerves as well as the taste buds (because some of the particles go up the air passage in the back of the throat and reach the olfactory nerves in that way, which is why things taste flat when you have a cold); but the taste of a steak as an act of consciousness is not the combination of sweet, bitter, sour, and salty from the taste buds plus the smell of the steak; it is a distinctive sensation, even though its information comes from these two sources. We also taste the object as in the mouth and not in the mouth and the nose. Note that the input from touch also enters into the experience of tasting (though not the taste itself), as we feel the "texture" of the food on our tongue.

Third, there is the input of *smell*, which does not react to the object making the odor, but to particles of it in the air that reach the nose. Here, the consciousness is aware *of the medium* between the smeller and the object. We smell the smell *as* in the air, and argue to being closer to the object making the odor by the fact that it is stronger. The information of the actual contact of the particles with the nose is suppressed in our consciousness. If the odor is very acrid, of course, there is the sensation of pain in the nose, but this is a touch sense, not smell.

Clearly, this information is useful to an animal that can move about, since smell can detect many differences between bodies. It is also not surprising that smell is closely allied with taste, so that the animal can find food at a distance by following the increasing strength of the odor.

Fourthly, there is the input of *hearing*, which reacts to what a distant object is *doing*, by means of the vibrations the action causes in the air or other medium between the act and the hearer. In this input, neither the contact of the vibrating air on the eardrum nor the medium itself is conscious (you don't hear the sound as in the air; you hear it as at a distance from yourself in a certain direction). With sound, the distance from the object is again argued to by the relative loudness of the sound when it reaches your ears; the direction of the sound is known by the difference in the part of the wave that strikes one ear as opposed to the other (i.e. the crest may strike the left ear and the trough the right one). Of course, the direction of a sound originating from directly in front, above, beneath, or behind you can't be known except by tipping your head; which is why dogs tip their heads when they hear a strange sound.

The benefit of this information, of course, is that actions which make the air vibrate can be dangerous; and so the animal can run from whatever is making the noise. And since the direction is also

known, you can know which way to run also.

Finally, there is the input of *sight*, which reacts to an object at a distance. It reacts, of course, by means of the light produced by the object as it either produces light or re-radiates light falling on it; but you neither see the light in the air, nor the *activity* of the producing of the light; what you see is the *cause*, not the *causality* (I refer you to Chapter 8 of Section 2 of the first part for the distinction). Hence, the object (seen as a patch of color) *looks* static and at a distance. The consciousness of the object as at a distance has three sources: first, binocular vision, in which we see objects close to us from slightly different angles from each eye, giving us what the physicists call "parallax"; secondly the size of the image as it impinges on the retina; and thirdly, the blotting out of objects that are behind other ones. These distance-cues have to be interpreted, of course, but they are basically visual, not really aspects of the integrating function (what the Scholastics call the *sensus communis*).

One interesting thing about sight is that there is a special form of consciousness when the sense is active but is not being acted on by any energy: the sensation of seeing a black patch or black expanse, as when you open your eyes in a perfectly dark room. With the other senses, there is no conscious difference between having the organ

¹⁵Actually, it is more complicated than this. What the eye does is use one of the eyes for seeing the object, and the other image (which is slightly displaced) is suppressed, although it forms the "distance clue" as to how far away the object is. If you hold up your finger and look at the landscape behind it, you will see two fingers. In this case, you are consciously aware of the double image, but in the normal case, your visual mechanism *recognizes* the overlapping images, but you aren't consciously aware of this except for seeing the "space" between the object in question and other objects behind it. This is complicated by the fact that when you look at something, each eye is aimed at it (giving a slightly different view of it), and thus it is the *background* image that is doubled. In this way, we see the roundness of a three-dimensional figure as well as how far away it is from us.

operative but not being acted on and having the input turned off. Thus, when you "listen to the silence," you don't *hear* anything at all; there is no auditory equivalent to "seeing blackness"; and the same goes for smelling, tasting, and feeling. But you can actually *see* nothingness, as it were.

As I say, any other way of being affected by some object or act would fall under one of these categories. For instance, if evolution developed in us a sense by which we reacted to radio waves, then this would presumably fall either under hearing or sight, depending on whether what was perceived was the act of the transmitter or the transmitter (by means of this act). We would then have two different types of sight (or hearing) the way we now have various types of touch. Those fish which perceive electrical charges in the water either perceive the water as charged (and then this would be a kind of smell) or they perceive the act by which the electrified object is charging the water (in which case it would be a kind of hearing) or they perceive—by means of the electricity it is giving off—the object which is causing the charge (in which case, this is a second kind of sight).

So a "sixth sense," it would seem, would necessarily have to fall under a second version of one of the five. Not that this makes a great deal of difference.

Now then, if we turn to the processing functions of the brain, the first one to note is what I called above the *integrating function*, as a kind of translation of the Scholastic *sensus communis*. The "common sense" will not do as a name for this function, for two reasons. First of all, it is not a sense, but an aspect of the sense faculty; its conscious dimension, as we will see, gets involved with and superimposed on the conscious dimensions of the inputs we talked about. Secondly, "common sense" in English means "discretion" or "prudence," not the "sense" that is "common to" the other "senses." Some

Scholastics have given this the name "unifying sense," but in my system of terminology, this is apt to be confused with the unifying activity of the body. And so for those reasons I chose the name above.

The energy-"dimension" of this function is in all probability certain of the brain waves (the alpha waves, I would think); these seem to be rhythmic pulses of nerve-firings through the brain, and their function seems to be to integrate all the information into a single pattern.

The conscious aspect of this function as such is *subjective space*, the kind of thing Kant talked about when he spoke of the "a priori form of external sensibility," that Euclidian space with the three Cartesian dimensions: the X-axis pointing upward through the top of our heads, the Y-axis point forward from our nose, and the Z-axis going through our ears, with the built-in laws of perspective that Leonardo da Vinci made such good use of when he put them on canvas.¹⁶

This is *subjective* space, or the appearance of space, and is not space as it is, which, as we saw in Chapter 5 of Section 1 of the second part, is the field-interactions of bodies, and does not follow Euclid's rules; it is, however, by means of this subjective space that we are aware sensibly of real space, because the distance-relations of bodies produce in us locations in the perceived space. In this, Kant was wrong. He assumed that subjective space was *simply* a way of organizing the sensations, but argued that it had no objective referent at all. It didn't have the objective referent that had been

¹⁶As I said in the preceding footnote, this "sense of space" has a good deal to do with binocular vision; but it is different, because it integrates into it other inputs as well. When you are looking at someone talking, you consciously hear the sound as coming from him.

^{5:} The sense faculty

attributed to it by people like Leibniz; but what Kant did not really see is that there can't be any a priori explanation of why a given object must be seen to the left of another object (that is, why you can't organize your visual field so that what is in fact seen on the left is seen on the right—as you can do with imagination). Of course, he also denied that there is any objective referent to the objects we see (thinking of them as purely subjectively organized patches of sensations); but as we saw in Chapter 1 of Section 2 of the second part, this also is untenable, or you could pick up the desk if you wanted to by picking up the book that was lying on it, simply by arranging the sensations into a book-desk instead of a book and a desk.

Nevertheless, space *as* we perceive it *is* subjective, and its laws are not the same as the laws of the real interactions of bodies that establish real distances and real positions. It is only, to some extent, that it is the *effect* of these real distances that gives it its objective referent.

The result of the organizing of the inputs by the integrating function is the conscious *perception*, or what the Gestalt psychologists call a "Gestalt" (a "form").

There are a few things to note here. First of all, as Kant saw, you can't have a sensation that is not also a perception. Any sensation will be located somehow in this Euclidian field of subjective space as it gets integrated with the other sensations active at the time into one polymorphous act. Even if only one input is active at the moment, it is still localized.

Secondly, since the rules of organization are not the same as the laws of interaction of external objects, this sense is subject to certain natural *illusions*, which the Gestalt psychologists have done a lot of work with. For instance, our visual input is organized in such a way that it is assumed that light is always traveling in straight lines; and

so when light is bent, as at the surface of water, we see the *oar* as bent, not the light; or when the light path curves by being refracted by the heated air of the road ahead of you, you see the sky as on the road surface (and shimmering like water because of the vibration of the air), and you experience a mirage. But we will leave further discussion of this to experimental psychology.

Thirdly, however, there is the interesting point that, though the way we organize our sensations into a single perception is in one sense more subjective than the inputs themselves, nevertheless, this is the function that "projects" the sensations outside us, so that we don't see or feel or hear things as in our heads, but as at a distance from us; so there is an increased "subjective objectivity" that we have due to this function. The "outsideness" of the outside gets inside, and the distance becomes present to us. I hasten to add that this does not mean that the *meaning* of "to be distant" comes to us from this sense; it is just that this sense gives us the basic data from which we understand distance-relationships. In itself, this form of space is only a form of consciousness; what it reports is discovered from it by understanding relationships. That is, it is the effect of spatial relationships; but we can only get at the cause (the acts outside as outside) by understanding relationships, and so interpreting this form of consciousness.

The second processing function is what corresponds to the "memory" of a computer, but which in animals and humans has traditionally been called *imagination*. This is the storage and retrieval of perceptions; and there are apparently two types of storage, more or less as there are in computers: the transient type, corresponding to the RAM of the computer, where information being dealt with is stored temporarily and then erased as new information needs to be processed, and a more permanent storage like the disk drive of the computer, where information stays and can be retrieved provided you

can get access to it. And just as in the computer, *parts* of the perception can be retrieved without necessarily pulling back the whole thing into consciousness; and these parts can be combined with parts of other stored perceptions into new wholes which as such were never perceived. We discussed this in its relation to our consciousness and objects in Chapter 3 of Section 4 of the first part.

Just what the energy-"dimension" of this function is it is not easy to say. It seems to involve chemical changes in the nerves, so that at the junction between nerves (where the electrical impulse passes from one to the other), there is a lessening of the resistance to the passage of electricity, so that the nerve-pattern involved in the perception can be reactivated with a lesser input of energy (and so can be reactivated with the energy that is always present in the brain, provided it is channeled into this nerve-pattern). Hence, there is no need of an outside stimulus to bring this pattern into consciousness again.

What this amounts to in consciousness seems to be a lowering of the threshold, so that consciousness occurs, but extremely dimly in comparison with consciousness which involves input from the sense organs. This in general allows us to distinguish between perceptions and *images* (the name for these reawakened perceptions or combinations of reawakened perceptions).

Hallucinations occur (as I also mentioned in Section 4 of the first part) when either the energy entering the nerve-pattern is so great that the level of conscious vividness matches that of a perception, or when the level of conscious vividness of the perception for some reason drops so low that it matches that of the normal image—in which case we have the experience of the *déja vu*, as I said in that section.

When a person has perceived something before, then obviously the same nerve-pattern is used over again, with whatever variations occur this second time. And in consciousness, the image is

superimposed on the perception, giving us what the psychologists call "mental set" whereby we can see more clearly something we are expecting to see, and by which we recognize someone by seeing the back of the head, and so on, and giving us the feeling of familiarity we have in seeing objects we have seen many times. Once again, then, it is not possible simply to perceive something; imagination is active in perception just as the conscious form of perception (subjective space) is involved in any sensation.

Imagination in humans is clearly sometimes under conscious control, as when we actively try to retrieve a stored perception (this activity is called "remembering" or "recalling"), or when we consciously try to combine parts of images into a new whole (in which case this is called "creative imagination"). Animals can *do* these acts, but can't *consciously control* them; in them, instinct performs the function. Animals can obviously combine parts of images, because they too can recognize new views of objects they have seen before.

One brief word about sleeping and dreaming. Sleep changes the brain-wave pattern, and shuts down the consciousness of the sense inputs, and refreshes us so that we can cope with another day's information. At the same time, the body's being relaxed and not having to move about allows the restoration of the muscles and so on that have got tired by exercise during the day.

What I think sleep basically does for sensation is to clear out the transient storage of the brain, so that it will be a more or less blank slate able to handle new input. This seems confirmed by the fact that if a person is deprived of sleep for several days, he begins to hallucinate, indicating that the new input is activating stored images also, at too high an energy-level. This seems to mean that there isn't enough space in the transient storage to handle the new information, and things are being overwritten by what is coming in.

Apparently, running the brain in "reverse," so to speak, clears out

these switches and returns them to "off"; and this seems to be the function of the sleep-waves of the brain. While it is doing this, apparently, whatever is done to put important information into permanent storage is also being accomplished. We can, of course, by memorizing while awake, consciously put information into permanent storage; and those who are skilled in memorization seem to report that when they settle down to memorize, something different is going on in them than when they are just experiencing, even experiencing vividly (though vivid perceptions seem to get stored into permanent memory too). What is actually going on here is very mysterious.

The role dreaming plays in sleep is not, I think, what Freud said it was, to tell us little interesting stories when we are disturbed (whose function is to say, "everything's as you want it; stay asleep"). Most dreams seem to be trivial and boring, and rather more unpleasant than pleasant; and of course if Freud's theory is true, nightmares mean that we want some pretty horrible things for ourselves.

I think the explanation of dreaming is simpler, and is connected with the sleep process itself (which is why, by the way, we all dream several times a night). My hypothesis is that the clearing-out function of sleep can do its job of erasing what is in the nerves if the energy it needs to erase is at a fairly low level. If there is more energy in a given nerve-pattern than will allow the nerves to be reset (because input was coming into it during the day but we were paying attention to something else), then energy from the brain restimulates these nerves, and the brain runs "forward" for a while, until the energy in this nerve-pattern gets dissipated enough so that the erasing-function can clear out the nerves. And this reawakened, low-level consciousness is the dream.

The actual contents of the dream, on this hypothesis, starts with

the conscious aspect of the nerve-pattern that has too much energy in it (and so generally would start from some experience in the day); but, like all energy that is undirected, as the nerves fire, the energy from them follows the path of least resistance into other nerves—and this path of least resistance obviously would be the pathway most often used out of that nerve-complex (because of repetitions of sequences in the past, or perhaps a very vivid association in the past); and so the "logic" of the dream is the logic of whatever sequence of images is most strongly connected with the preceding one, because of your past experience.

Then, as the energy level drops in each nerve-pattern, it is erased. This would explain why dreams and that wandering of consciousness just as you fall asleep are so forgettable; if you waken in the middle of a dream, even one that seemed very interesting, it is most often the case that you can't remember what happened in it even a second before. Of course, if the energy in the nerve-pattern is so great that the dream can't lower it enough for erasure to work, then it wakes up the whole brain, and we come out of sleep—often with a nightmare. Frightening things and horrible things are generally experienced very vividly, and so nightmares (dreams vivid enough to awaken the person) are usually terrible experiences. Thus, on this theory, we need no "death wish" to explain nightmares; it is just that when these patterns have energy in them, they tend to have a lot of it.

Note that if a person is emotionally disturbed, this means that there is something wrong with the "program" of the brain (which we will discuss shortly) by which experiences are associated with each other and with behavior. Not surprisingly, then, such disturbances will result in dream-sequences that follow the path of the obsessive associations; and so dreams are sometimes instructive for psychologists.

The third processing function has traditionally been called *sense memory*, although it does not really correspond to what we normally think of nowadays as memory, which involves storage and recalling of information (that function is what I called "imagination"). This function is the "filing system" of the sense, where information is stored in order of how easy it is to restimulate the nerve-pattern. And since the "insulation" between the nerves at their junction builds up again over time, requiring more and more energy to stimulate the nerve-pattern as time goes on, then this function is a kind of rough-and-ready clock—or better, calendar, by which dates are put on past images.

This function is not the same as our *knowledge* of time and date, because that involves understanding the *relationship* between what is represented in the recalled image and the present or other events. This function in itself does not actually result in an awareness of the "date" *as such*, but is simply that the recalled image takes more or less effort to bring into consciousness. Nevertheless, the "pastness" of the past becomes present to the animal by this function, even if it is not pastness *as such* that the animal is aware of. That is, in imagination, what is (in fact) past is present (i.e. not absent) to the animal; with this additional function, it has a "tag" on it (the degree of vividness) which *distinguishes* it from the present, and so the "pastness" of it (its not being at the present time) is also present to the animal.

This, I think, is the basis of Kant's *a priori* form of internal sensibility: time. That is, the form of consciousness connected with it is *subjective time*, taking "time" in that very loose sense described above, and not the kind of thing we measure with clocks. Still, we do have a certain awareness by this function of the passage of time; people can often tell when five minutes or a couple of hours have gone by, and some can be quite accurate about it. Apparently this has

something to do with awareness of our biological processes as going on within us as events reported by our senses unfold "out there."

But this function is very inaccurate as a clock. When you are bored, minutes seem to take hours, and when you are interested in something, hours seem to take seconds. The reason for this is probably that when you are bored, you have little outside you that interests you, and you are paying attention to your biological processes and events; and so you notice the passage even of seconds. When you are concentrating, however, you are paying little or no attention to your bodily processes (or even to any processes at all), and so you have no awareness of time's passage.

Remember, as we said in Chapter 6 of Section 8 of the second part, time itself is not something real, but only the comparison of the quantities of different processes; and so it is not surprising that this "time-as-perceived" would be even more tenuous in its relation to clocks than "space-as-perceived" (the form of the integrating function) is to field-relations. I refer you back to the mysteriousness in that chapter of the fact that both the past and the future exist, and the contradiction involved in saying "only the present moment exists."

In fact, when concentrating, our consciousness often slips out of time altogether, and is in a timeless condition, analogous to that of God, who knows, but does not know sequentially. And in listening to others or reading, our consciousness is actually operating timelessly. Did the meaning of the sentence you are reading dawn on you gradually as your eyes scanned the words, or did you understand it as you were reading it, in one act which didn't occur either at the beginning, at the middle, or at the end of the process of reading? We have all, probably, met those annoying people who finish our sentences for us, which means that they understood what we were saying before we got through saying it; but all of us do this, actually.

Anyone who has studied a foreign language knows how much we don't actually hear of what another person says to us, and which we simply fill in from our knowledge of the language; and so our understanding of what someone is saying is not a process of putting together the words as he says them and finally coming up with the whole when it is all over; it is much less temporal than that.

The same goes for hearing a piece of music; it is a single experience, not a gradual process, even if the piece takes an hour. That is, there isn't any real difference between looking at a painting and hearing a symphony in the respect that one is atemporal and the other is temporal. You don't see the painting "all at once" if it is at all complex; you look at it as a whole and scan the various details, seeing them in themselves and in relation to the whole; and your eyes wander over the painting following a path that the painter has provided by the arrangement of the shapes and lines. This takes time; but you still see the painting as a whole all the time you are looking at it. Similarly, when you listen to music, you are hearing the whole piece as it unfolds before you along the path the composer has provided; and the fact that some of it is "future" is not terribly relevant, because you are by anticipation (awareness of the "structure") aware of the future as well as of the past; you are certainly not aware of just "the present moment."

This is one reason, by the way, why it is easier to hear a complex musical composition after hearing it several times; you are able to hear it as a whole, having heard it before, while you are listening to how the parts fit into it. The same goes for a novel; the unknownness of what is going to happen gets in the way the first time around, and prevents you from seeing the events as a unity. For that matter, this is also true of a work of philosophy such as this one, or any extended intellectual or artistic piece. I can see the whole of what I am writing as I write this (though many details come to me as I write), as is

evident from my promises to treat some topic later. But you won't see how it all fits together unless you run through it twice. Sorry about that. But this explains why teachers give final examinations; it isn't that they want another grade, but that this forces students to see the whole course as a whole, which they couldn't do when going through it.

I suspect that this "rereading" is something like the kind of experience we will have after death, when we will no longer be able to change, and our whole lives will be eternally present to us. It will be no more boring then than reading a very good novel or seeing a great motion picture for the second, third, or fourth time is.

At any rate, it seem that consciousness is in itself not something temporal. We have in recent centuries been so brainwashed by science (which has yet to give up on using clocks as the main measuring-instruments, in spite of the fact that they aren't measuring anything) that we think that everything has to be in time—and localizable along some "line" of temporality—and thus we deny our own experience and say, "Well of *course* it occurred in time, and developed gradually," when we know perfectly well that it didn't.

Finally, the fourth processing function is what is called *instinct*, and is, as far as its energy-"dimension" is concerned, the basic genetically built-in "program" of the brain, by which the two sorts of information coming into the brain (the state of the body and the condition of the environment) are compared according to set rules, and energy is sent to the appropriate motor-nerves to cope with the environmental situation.

Psychologists make a distinction between reflexes, instincts, drives and—we might add—habits. A reflex is an automatic response of the nervous system to a stimulus without involving processing by the brain, as when the knee jerks on being struck. The impulse goes to the spinal cord and then directly back (while some of it goes up to

the brain to make you feel the blow). As Pavlov showed, reflexes can be trained; he made dogs salivate (a reflex) on hearing a bell by ringing the bell whenever he gave them food.¹⁷

An instinct, for the psychologist, is an automatic pattern of behavior that is unlearned and absolutely stereotyped, so that at the stimulus the proper response is inevitable, as the "dance" of the bee when returning to the hive. Instincts in this sense need no observation or training, and never vary. A bee will dump honey into a comb-shaped opening, even if it sees that the back of the cell is open and the honey is draining out. Human beings, actually, seem to have very few if any "instincts" in this strict sense in which the psychologists use the term; the only one I have heard of is the jerking of limbs of an infant when he is dropped; all other tendencies toward automatic behavior are drives.

Drives are tendencies toward definite behavior, but they are modifiable and partly learned. Much of the instinctive behavior of higher animals like dogs actually involves drives. I trained my dog,

¹⁷There is a question here, however. Very few reflexes are "pure," since they always do have a form of consciousness associated with what is happening (the part of the energy that gets diverted to the brain. So the brain, on being presented with the conditions under which an action demanding a reflex occurred, can (and I think does after a number of repetitions) anticipate the situation and it produces the action which at the beginning was a reflex. If your knee gets hit (giving you the knee-jerk reflex) several times, then your knee is going to jerk when you see the hammer coming toward it, even if the hammer never touches you. Thus, what was a reflex gets transformed into a kind of anticipatory habit. In this case, Pavlov's experiment showing that reflexes can be trained (dogs salivate on hearing a bell, when the bell was rung just as food was presented) is not, in my view, a training of the reflex, but something like the following: When the dog hears the bell always associated with food, then the ringing of the bell brings to its imagination the food, and the dog then salivates. It isn't that the reflex got trained, exactly; it's that it got activated by a habit that had been trained. So Pavlov's experiment does not prove of itself that the actual reflex can be trained.

for instance, to take a bone gently from my hand instead of snapping at it

A habit is an automatic behavior in response to a stimulus, when the relation between the behavior and the stimulus is not genetically built in but learned through repetition. Most of our behavior (insofar as it does not depend on choices, but is automatic) and that of the higher animals is a combination of drive and habit, which is why behavior modification therapy can work. Whatever the reason you got into an emotional disturbance, it is still possible to be retrained so that the stimulus produces a different response from the one you have trouble with. That is, this is always possible in principle, though it may in practice be impossible because of the strength of the drive and the habit.

Instincts and drives both deal with the function I have called "instinct," because they are the operation of the program built genetically into the brain, whether they are absolutely stereotyped or not. Habits are a bit different from the normal functioning of instinct (in my sense, now), because habits do not of themselves seem to have any special form of consciousness as an epiphenomenon, while each drive has its own form of consciousness, called an *emotion*. Habits can have emotional overtones when they involve operations of instinct as they are being acquired; but even then, the emotion tends to get less. For instance, as one gets into the habit, say, of eating sweets, the pleasure is there strongly at first; but after the habit is formed, the eating of the sweets becomes a necessity and the pleasure diminishes. The same is true of most vices (bad habits). We will talk much later about drives and habits when we discuss their implications for morality.

The Scholastics called emotions the "sense appetites" and classified them in various ways as versions of a separate faculty. The reason they thought the "appetite" was a separate faculty was that it

involved a tendency to *get* or *avoid* the object in question, while the other sensations (the "knowing" ones, all that we have talked about so far) involved simply a modification of the subject by the object, and not behavior dealing with it. Emotions as "appetites" were also distinguished from instinct, which for the Scholastics was "sense logic," that by which animals imitated on the purely sense level what we do when we reason.

They called the function (the "faculty"), by the way, the "estimative power" in animals and the "cogitative power" in humans, the difference being that in animals it is itself not controlled by anything else and exercises the basic controlling function, whereas in humans it can be consciously controlled and is not the highest faculty.

I think the distinction between the "estimative" or "cogitative" power and emotions ("appetites") is a mistake, just as I think that the division of the spiritual faculty in humans into "intellect" and "will" on the same grounds as this distinction is a mistake. I think this is making too much of the notion that a faculty is defined by its act and so by its object. It seems to me that the "tendency toward" an object is in fact nothing but the channeling of energy in the brain in a complex pattern, which happens to end in the motor nerves and not anywhere else; it is the same thing the animal is doing when it is doing "sense logic," and in fact what we are doing when we do complicated problems, except that (a) it is automatic and built in, and (b) behavior results.

Hence, I am not going to deal with all the different appetites we have, and how some are pleasures and others are pains, and what the object of each is (e.g. that *fear* is the reaction to a danger that can be avoided by running away, *terror* the reaction to a danger that can't be avoided by running—and so you freeze—, *anger* the reaction to an obstacle that can be overcome, *despair* the reaction to an obstacle

that cannot be overcome, etc., etc.). Part of the reason for my decision is that the emotions themselves as conscious are as much cognitive as "appetitive"— and in fact, in the appreciation of art, they are used by us as purely cognitive, and the tendency to behavior is stifled. Another part of the reason is that the classifications do not fully express the real differences. For instance, fear is one category of emotion, but the fear of the dark is quite different from the fear of a lion running loose, the fear of a snake or a spider, the fear of heights, the fear of catching a cold, stage fright, and so on. Even the actions the fear deals with are different, though they are all some kind of avoidance. I think that classifications like this are interesting, but they are better left to the experimental psychologist, who might use them in trying to straighten out people with emotional disturbances.

But even here, since our programs are modified by experience and habits, as well as the state of our body at the moment, each person's emotional reaction to something is probably unique, and classifications of what emotions are caused by and what they lead to can only be very general helps. I have seen psychologists who, on the basis of four of five hours of asking a patient what he is feeling and observing his behavior (or what the patient even tells him of his behavior), presume to know what kind of a person he is and what is bugging him. I simply don't believe this sort of thing. This is the equivalent of saying that you know what is in a word processing program of the complexity of WordPerfect because you have seen a lot of word processing programs and read maybe fifty lines of the source code.

But let that be enough for my reasons for dismissing the "sense appetites" altogether, and my claim that they are just the conscious "dimension" of the function I called "instinct." What I am interested in here is what instinct seems to do in the consciousness and the life

of the animal. First of all, what generally is going on in this function is the *directing of energy* in the brain; based on the program, energy gets channeled into definite pathways, calling up various bits of stored information and integrating them, and finally acting on the motor nerves to cause behavior.

One of the things that the function does in this process is pull energy out of areas where there is not any important information, and use the added energy to reinforce what is in the important area. This is attention. We cannot usually see all the information that is coming into our eyes at a given moment, because our instinct is monitoring our bodily state and picking out the information that is most important and enhancing that at the expense of the rest. Of course, "important" here is not what your consciousness considers important (which is something you freely decide for yourself), but what the instinct has built into its programs as a hierarchy of things to be considered before other ones are taken up. It is like those chess programs, which scan eight moves or so ahead, and following rules (that a pawn should be sacrificed for a knight, but not vice versa) pick out the "best" move on that basis. In any case, what instinct is doing is highlighting certain information by borrowing energy from other information, which puts that information below the threshold of consciousness.

Animals can pay attention, but humans have the ability to *concentrate*, because our spirit exercises some control over instinct. Concentration is, of course, simply deliberately paying attention. We can focus our attention and block out distractions; in an animal, the attention is focused by the particular drive that happens to be operating. Obviously, unless you are very unusual, you know that this ability to concentrate has its limits, and strong drives or stimuli can destroy it. This will actually serve as part of an effect that we will investigate toward the end of this part, when we look at the evidence

indicating that human nature is somehow "fallen."

The other thing, of course, that instinct does is provide us with a number of *drives*, which get modified by repetitive acts and different circumstances. Here again, humans are different from animals. We can deliberately program our brains so that we will have new automatic behavior-patterns when confronted with certain stimuli—we can create habits, in other words. In animals, training comes from outside, and habits are always the result of one drive's overriding the behavior from another, as the drive to avoid punishment from her master made my dog take a bone gently from my hand. The same sort of thing happens in us when we don't *deliberately* try to get into a habit, but drift into one because some drive frequently overcomes and modifies a weaker one.

B. F. Skinner sees no difference at all between what happens in animals when they are trained and what we do when we create habits, as opposed to drifting into them. His position on this distinction involves an assertion that the apparent "deliberateness" of creating a habit is itself always the result of the dominant drive at the moment; and so instead of consciousness' controlling the instinct, it is controlled by it, just as it is in animals. We will see later that his hypothesis not only can't account for the difference we experience between being overcome by the stronger drive and deliberately overcoming some drive, it can't even make sense out of one of the things clinical psychologists use it to treat: emotional disorders such as compulsive behavior.

Given that I can refute Skinner's position, then an important conclusion follows:

Conclusion 12: The way you feel emotionally does *not* reveal the "true you"; you are not being honest with your real self if you (a) let your emotions rule you and don't deliberately control

them, or (b) take your emotions as your "true attitude" toward something.¹⁸

An *animal's* emotions reveal its true nature, because they are the controlling aspect of its nature; and so if a dog snarls at you, it *is* hostile toward you. But human behavior is basically consciously controlled; and if a man snarls at you, he might actually hate you, or he might be joking, or he might deliberately be pretending to be hostile because of some benefit he wishes to you out of love for you.

The point here is not so much the truism that behavior is consciously controlled, but to counter the tendency from that part of scientism that is clinical psychology that the way you *feel* about something is your "real attitude" toward it. This is just bunk. The way you feel about something is simply the conscious aspect of a program that is built into our brains, and is there to adapt our species to life as it was when we lost our tails and came down out of the trees. But we wear clothes and live in heated houses instead of caves, and in this we are going against the kind of thing that our instinct directs us toward—and we don't consider this "unnatural." Similarly, if you feel hostile toward someone and you show him respect, you are not being hypocritical at all, if your *mind* recognizes that the person deserves respect from you and not hostility.

Many people, imbued with this mistaken notion that the way you feel about things is your real attitude toward them, spend a great deal

¹⁸I actually learned this from personal experience. When I was a teen-ager, a friend of mine died, and I was at the funeral, feeling no sorrow—nothing (I imagine I was either in shock or blocking out the reality I was seeing). I felt like standing up and saying scornfully, "What is everyone looking so gloomy about?" but out of "cowardice" I acted as expected. Then at the grave, I saw his mother's face, and realized that I had lost someone I really loved—that my "cowardly" response reflected what my *true* relationship was with the boy.

^{5:} The sense faculty

of wasted effort in refusing to recognize emotions they have toward others when they know the emotions are inappropriate to the really understood situation. For instance, for years I hated my mother, who was an alcoholic, because her alcoholism created all kinds of difficulties for me; but I told myself that I wanted her to quit "for her own good" (which was true) and didn't want to admit that my convenience had something to do with my fervor, let alone admit that I hated my mother for what her handicap was doing to me. Those ideas didn't occur to me for years, because, of course, I thought that I ought to love my mother and interpreted this to mean that I ought to feel affection for her.

What I now realize is that I love her deeply, and while after such a long time I can think of her with affection, the affection has nothing to do with my love for her. I know that what my love means is that I wish her success in all that she wishes for herself, and that I am willing to inconvenience myself to help her achieve that success: my love, in short, means that I want her to be just what she wants herself to be, and that I will help her attain it. As it happens, she now is all that she ever chose to be, and the only thing I can do now is pray for her, in case the total fulfillment has not yet come. And I rejoice in her fulfillment. But I don't *feel* particularly elated at thinking of her in heaven.

And that I once hated her (in the emotional sense of the term) doesn't bother me; because I also know now that I loved her while I was hating her—though nowhere near as much as I do now—because I did not want to do her any harm, and did, in my misguided way, want her to be free of the obstacle to her own fulfillment that drinking had become. A feeling is a feeling; it has nothing to do with your true attitude unless you include it as part of the attitude you *choose* to have.

Actually, psychology has done some good in letting us realize that

feelings in themselves are neither good nor bad, and so freeing us to face them. The problem is that if you aren't very careful about this, you destroy something else that is vital to human conduct: the notion of right and wrong. That is, if you say to someone that feelings are neither good nor bad and that it's all right to feel a certain way toward his mother, and you don't explain to him that his intellectual attitude is what is his real attitude, then he's apt to think that it doesn't matter what behavioral stance he takes towards his mother (deliberately wishing her dead or in pain, for instance); and the last state is worse than the first. Also, if a person can control his behavior, then, while it might be useful to get his feelings in line with his true relation to another person, there is nothing *necessary* in this, and in fact it can't be done fully anyway. A person who is not aware that the feelings don't matter, and that his true attitude is the one he chooses to have, is apt either to make his intellectual attitude conform to his feelings on the grounds that it's okay, or to waste enormous amounts of time, energy, and money on getting his feelings into conformity with his intellectual attitude when the feelings aren't in control of behavior.

The attitude most consistent with the way we are now constructed seems to be to recognize feelings and not suppress them (because they can be an obstacle), but having done so, to ignore them.

If only things were that simple, of course. One of the problems that we will raise again in discussing "fallen" nature is that drives, especially when reinforced by habits, can take over control of behavior, making you incapable of directing the energy out of the nerve-pattern in question.

The result of this control over consciousness by some program that has got too strong is either or both of two things, which define the two basic categories of emotional disturbances. First, since

instinct controls attention, then a drive which is itself out of control can (a) block out information that is irrelevant to or especially against its successful operation, or (b) create misinformation (using the imagination) that will be helpful to it. This is more or less what psychologists are referring to with *psychosis*. Secondly, the instinct may leave the conscious awareness of facts intact, but prevent the spirit from making the body do anything but what the drive directs it towards; and when this happens, psychologists used to use the term *neurosis* to describe it—although that term, with the connotations of a "disease" it acquired, seems to be out of favor at the moment. Generally speaking, neuroses will also involve a greater or lesser amount of psychotic unawareness of obvious facts, and psychoses also lead to behavior that is recognized to some extent by the person as being out of control (else why would he seek treatment?).

There are two things to note here. First of all, what is actually wrong with the drive (or even which drive is involved) can be extremely difficult to discover, because the drives are like user-modified computer programs of horrendous complexity; and this means that two emotionally disturbed people who exhibit identical behavior on presentation of a given stimulus may have wildly different causes for this in the circuitry of their brains. Anyone who has done anything with computer programming knows how very difficult it is to debug a program, because the difficulty can be almost anywhere in the source code. Further, correcting the problem also can be very complex, because the change of a line of the source code that corrects the output problem can affect other lines (because of feedback loops) and cause other output difficulties.

The same goes for psychological treatment. There are horror stories like the one about the patient who was hypnotized into giving up smoking and who then killed his wife, because whatever it was that was making him smoke happened to be his drive's release from

a murderous hatred for his wife.

One tinkers with the human mind at great risk; and the motto here should be "If it ain't badly broke, don't even think of trying to fix it" by psychological treatment; the last state can easily be worse than the first. If you want to fix minor problems, then get yourself into new habits, or learn to live with them. And the more you realize that feeling inappropriate emotions is no problem, then the fewer psychological problems you will have. So you are chronically depressed; so what, if it doesn't seriously affect your ability to do what you choose to do? People who aren't depressed, God knows, have enough things that distract them from what they choose to be doing. (As I wrote this, I was taking pills for depression; but I did so to help a pharmaceutical company test them. And I must say, I felt a great deal better than I had for years—and I rejoice in this—but I wouldn't have taken them on my own initiative, because such chemicals can have complex side-effects, some of which I have experienced. And in fact, that is why I was testing the pills: to help the company find out what the side effects are, so that those patients who have something that impedes their behavior can assess whether getting free of the lack of control is worth experiencing the side effect.)19

The second thing to note about psychoses and neuroses is important enough, I think, to state as a formal conclusion:

Conclusion 13: The goal of psychological or psychiatric treatment should be to get the patient back into *basic control* of his information and/or behavior.

¹⁹For those who care, as I revise this now in 2003 (I wrote it perhaps 20 years ago), I no longer need medication for depression.

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What I am saying here is that psychological treatment can't and shouldn't try to make a person "happy" or "well adjusted" or "a productive citizen"; and there is nothing psychologically wrong, necessarily, with a person who isn't happy, or who is eccentric, or who is not "productive" or doesn't "fit in" with other people. Much of this behavior is engaged in by people in control of themselves, who don't care about changing it; in which case, it is not an emotional disturbance at all. Much more of it is engaged in by people who *could*, if they wanted to, do something else, but who consider that the effort in getting out of their habit is not worth the candle. Only a small amount of it is engaged in by people who are out of control; and with them, the best that can usually be hoped for is to regain basic control back, without making everything hunky-dory for them.

Freud himself recognized this; but his tentative gropings about how to cope with emotional disturbances has been raised to the level of a religion, promising joy and fulfillment to those who put themselves under its ministrations; and this is a promise that can't be fulfilled, but which puts Ferraris in the garages of the practitioners.

Let's face it, there's a great deal of quackery going on in the world of psychological treatment, because of the myth that if you're unhappy, there's something "wrong" with you that some pill or sessions with the secularists' equivalent of the confessor can take care of. But many, many people are unhappy because this is an appropriate response to the situation they are in. For instance, those pills I was taking made it possible for me not to think about things that depressed me, and I am grateful for that, because there was nothing I could do about many of them. But that doesn't mean that my calm outlook on things at that time was appropriate to the situation I was actually in, because I was not considering half of the evidence. There was no reason why I should brood on these negative aspects of my

situation; but it doesn't follow that the happy attitude I had toward myself, my world, and my life was the *right* one. By the same token, it doesn't follow that feeling depressed was the right attitude either. Neither attitude is the right one, because good and bad (which emotionally translated into happiness or depression) are subjective relations of the facts to some ideal you have picked out as the way things "ought" to be.

Whether you "should" feel happy or depressed depends on whether your understanding of the facts about your situation shows that it matches your ideal or not; if it doesn't, then depression is the appropriate emotion. In my case, since my ambition is to change the world's way of thinking for the next thousand or more years, then the fact that I don't realistically expect this book to be read in my lifetime or that I will be able to make any significant dent in others' view of life during my lifetime is, if not counter to the ideal (since I have reason to think that my goal will be achieved after I die), at least not particularly consistent with it. And let me tell you, facing the prospect of writing a book of this size that won't be read until after you die was very depressing to me before the pills came and helped me to pay attention just to what I wanted to get down, not to what I wanted it for.

There's no question about it; it's pleasant to feel pleasant. What I am saying is that this should not blind us to the fact that it might be better for us to feel unpleasant. Part of our drug problem in the United States is precisely this: that people are taking chemicals to feel pleasant, because their objective situation is horrible, instead of getting angry with it and doing something to get themselves out of the situation. You don't get out of the ghetto by smoking crack or taking ice; you get out by letting your horror of your situation make you study and work and lift yourself out. In that sense, unpleasant emotions as the "right" ones are a good part of the solution to the

problem of drugs and the wider problem of the ghetto.

Two final remarks before we go on to discuss thinking. First, human drives are different from animal drives, because in animals the programs are all integrated in such a way as to ensure the survival of the individual or at least the species; and so if an animal follows the drive dominant at the moment (which is all it can do, of course), then this in the long run is beneficial for it and/or its progeny.

But humans are obviously not constructed this way. Each of our drives tends toward only the fulfillment of one particular aspect of ourselves, and is only very tenuously related to the fulfillment of the self as a whole. Further, as each drive is followed, it tends to become that much stronger as a habit is built up, and hence will tend to override counter tendencies in the future, and even develop into a neurosis or a psychosis. This makes sense if the human being is constructed in such a way that consciousness on the level of thought is what is in control, and emotions are subordinate to it.

Hence, it is not only not necessarily beneficial to blindly follow your emotions; it is very dangerous and can be disastrous. The stoics had a better idea of consciousness and behavior than modern scientific psychology; they held that you should deliberately practice going against the way you feel, to make sure that your emotions are under your control and your consciousness does not fall under the control of your emotions.

We can draw a conclusion from this:

Conclusion 14: The function of emotions in human beings is to provide information to the person, not to control his behavior.

That is, the emotions indicate what tends to be physically beneficial or harmful to the organism in its pristine state; but since

each emotion only deals in humans with its own benefit, and it is up to each person to decide what he wants to do with his life and make his ideals accordingly, then emotions in humans have a *cognitive*, not a behavioral function. They must be assessed and evaluated in the light of the person's view of what his chosen "real self" is, and not used as automatic indicators of what is good and bad.

The second remark is that, since consciousness is contained within itself, then insofar as consciousness controls, it also controls itself (this is what choosing is, in fact).

This leads us to the following conclusion:

Conclusion 15: All problems involving lack of control are *emotional*, and are not problems of "will."

That is, the "will," as a spiritual faculty that controls, *cannot* be out of control of itself. The only thing it can be out of control of is the instinct, either by not being able to access desired information, or by not being able to prevent energy from flowing in a behavior pattern other than what was chosen.

Basically, the fact that behavior problems (insofar as they are personal, not social) are emotional means also that they are basically problems with the circuitry in the brain, which is the energy-"dimension" of the function I called "instinct." This is why chemical treatment and things like electroshock treatment can be helpful.

Spiritually speaking, we are all the same, because the human soul (the humanity of each human being) is the human spirit, as we will see; and it is its energy-"dimension" which distinguishes each of us from everyone else. Hence, levels of "intelligence" or levels of "will power" are not differences in the spirit *as such* but in the spirit *as*

limited by the energy in the brain. 20 The idiot is not someone who cannot understand well; he is one who who can't raise much information above the conscious level at any one time; any information he can keep in consciousness, he can see relations among, as well as anyone else. Similarly, the psychotic or neurotic doesn't lack any ability to know or control that other human beings have; he either can't get at information that otherwise would be available (because energy is being kept out of it), or the energy in some loop is so great that he can't get all of it out of it, any more than anyone else could with this same amount of energy. That is, his consciousness is not weak in controlling the energy-flow; it is the energy which is so great in this pattern that no human spirit (in our "fallen" condition) could control it. Weak wills, in other words, are in fact strong drive-habits.

But let that be enough about psychology and sensation.

²⁰This is true, but you must remember that the spirit is not something that "has" a body; the spirit *is limited* in quantity in its actuality, though not in its spirituality. I noted before that degrees of vividness of the stimulus cause degrees of response of the nerves, and this translates into what for practical purposes amounts to degrees of vividness of the conscious sensation (though, as I said, in actuality, these "degrees" are really forms that *report* a degree). The point is that there is not a neat separation between spirit and matter, and so a lack of control can in some sense said to be a weakness of will—a weakness in being able to carry out what it would like, together with an unwillingness to try to struggle against the emotional tug.

Section 3 Understanding and Choosing

Chapter 1

Are humans different?

e now come to the acts that are distinctively human among living bodies—or at least acts which we have no clear evidence for in any other animal: understanding or thinking, and choosing or willing. As we investigate them, we will conclude that these acts are spiritual, not immaterial; and this will leave us with implications for the human soul and its immortality, which will be the subject of the next section.

It is a little hard to begin this discussion, because here more than anywhere else, perhaps, the general view of people is that it is scientifically established that we are just complex animals, and all the talk of a special dignity we have and of spirituality, freedom of choice, and immortality belong to "religion" and are wishful thinking, and have nothing to do with actual facts, let alone with anything that can be established from the observable data confronting us.

The mere fact that David Hume's skepticism is called "empiricism" is a clue to how deep the attitude is; but Hume is perhaps not the real culprit here. What made the big difference was Kant's elaborate and rather convincing arguments that questions of spirituality, freedom, and immortality cannot be proved (or can be proved both ways, depending on the question) and are held because they must be believed for practical purposes of moral conduct. Hegel's brilliant vindication of spirituality went, unfortunately, much

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too far, and all he did (after the initial enthusiasm wore off) was to give the anti-philosophers ample grounds for saying that philosophy was nothing but convoluted word-games that had nothing to do with the real world.

Let me take up at this point only Kant's refutation of the spirituality of the soul, just to show that it doesn't establish what he thought it did. Further discussion will be left to an appropriate place, but something must, I think, be done at the outset.

Kant calls the view that the soul is spiritual (actually, a "spiritual substance") the "paralogism" of pure reason, meaning that it is a four-term syllogism, and so invalid. The argument goes this way: A substance (using the classic Scholastic terminology, as perhaps modified by Descartes) is that which unifies a multiplicity;²¹ but the "(I think)," the mind or soul, unifies my consciousness; therefore the human soul is a substance. But the human soul is not one of the objects of experience; therefore it is spiritual. Therefore the human soul is a spiritual substance.

Kant's contention is that "to unify" here is taken in two different senses. The "substance," on his analysis, is the *rule of consciousness* (the category) by which the data of sensation are collected into a unified whole through time, resulting in a object of experience (which for Kant was essentially what I would call a perception, not an object at all); and the "substance" shows up as the underlying thread (actually, the time) unifying the *object*. That is, the "substance" *appears* as something in the object, even though it is in fact only the

²¹You will recall from the second part that *my* usage of "substance" is not the unifying energy itself, but a specific *type* of unifying energy. So the properties of a substance are what all the examples manifest in common, not the properties of the individual.

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rule by which sense-data are unified through time.²²

The paralogism comes at this point. The "(I think)," the subject, is not a unifier of experience in that sense; it doesn't connect my stream of consciousness into a single something all at once, the way an object of consciousness is a unified whole. Hence, there is no reason for saying that the human soul is a substance at all. The only things we can *know* are objects of experience; and the human soul cannot be an object of experience; and so, since the reasoning above uses "unify" in two senses, we cannot know anything at all about the "(I think)."

First of all, his analysis of substance as a rule of my consciousness does not explain, as I discussed in Chapter 1 of Section 2 of the second part, how I *must* unify only *some* of the data of sensation into a percept and how I can't make a single body out of the book and the table it is on. If "substance" is a category of my mind, there would be no reason for not being able to do this. Hence, as I pointed out in that chapter, something from outside is forcing me to consider this set of data as belonging to one unit and that set of data as belonging to another; and this can only be because the parts of the body are in fact unified by something outside my control altogether. This is confirmed by the fact that I can create sets of disparate objects and consider them as units, even though I know that the collection is not a real unity.

Hence, "substance" is not a category of the mind. Secondly, we are not interested in the *mind* as a "substance" anyhow; in fact it isn't one. What I am going to be arguing is that the human *body* is

²²If you think of the "object" (the percept) as a picture made by a television tube, consisting of a number of colored dots arranged across the screen as the electron beam scans the tube, then the picture is Kant's "object" and *the fact that* the unification takes place through time is what shows up as the "unity" *in* the picture.

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unified, and therefore has a unifying energy; but that the unifying energy cannot simply be energy because one of the acts performed by the human body is that of understanding, which is infinitely beyond the capacity of energy. Hence, Kant's arguments simply do not apply to what we will be talking about. He may have refuted Descartes' notion of the mind as a kind of spirit inside a machine; but that notion was invalid anyhow (though on other grounds).

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Chapter 2

Is understanding a distinctive act?

evertheless, if we are going to establish that the human soul is spiritual, the burden of proof is on us, just as it was when we tried to show that consciousness was not a form of energy. If something can be explained on a lower level, then Occam's Razor says that that is the preferred explanation.²³ Of course, understanding and choosing are clearly conscious acts, and so they are at least immaterial; so our investigation is whether they are some complex combination of sense acts, or whether they are acts different from any of the sensations we discussed, what they entail, and whether such an act can have an energy-"dimension" at all. If this last point can be established, then understanding and choosing are spiritual acts, which means that there is no faculty for them as such, and also that the human soul is somehow spiritual.

Note that I am not setting out to establish this; what I meant just above is that if an honest investigation demands that the act of understanding be a spiritual act, then we will not let *a priori* prejudice that it can't be make us distrust the argument. Being critical is one thing; doubting when there is no evidence on your side

²³Why this should be so is something that we will discuss later, when we talk about science, and why scientific method works.

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is, as I have stressed so often, something else.

Simply to be clear about what I am talking about, let me say that the characteristic of *understanding* is that it is what results in generalized concepts, such as are expressed by the words "face," "triangle," "liberty," "nothingness," and so on. While we may have sensations (perceptions or at least images) of individual faces, it is open to question, at least, whether we have a sensation that could *correspond to the meaning of* "face" as such, or whether what we mean by "nothingness" or "liberty" is some sensation or combination of sensations.

Let me remark here that I am taking "meaning" above in its usual sense, and not in the sense some linguistic philosophers seem to take it: that it is the same as "usage." There is a very subtle difference between the two. For instance, "feces" and "shit" *mean* the same thing, but usage decrees that one cannot be substituted for the other, except perhaps when speaking ironically (showing by shock the euphemistic nature of the context in the one case and stressing the vulgarity of the context in the other).

Nor is "meaning" the same as "reference." Aristotle is *referring* to the same thing I am referring to when he speaks of "soul," but he does not *mean* what I mean by the term. One of the things I am doing in this book, in fact, is giving traditional old terms a new meaning by taking a different approach to understanding what the old term refers to.

In the process of eliminating the possibility that understanding can be a sensation, however complex, we will see what it must be to give us general ideas of things, and this will allow us to say what "meaning" means. But for now, I have to rely on your common understanding of "understanding," "concept," and "meaning."

In discussing what is entailed in understanding, let us take the word "face" as our example. What we are after is whether there is any

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candidate in sensation that can be the meaning of this word for us, such that it is what mentally substitutes for it, and what we try to call up in the other person's consciousness when we say the word.

First of all, is the meaning of the word "face" the collection of all the faces we have seen? This is the nominalist position. What this view holds is that, presumably in some area of our imagination, we have stored all the faces we have encountered, and all the word "face" does is point to this *area* of the brain, without conjuring up one image from it. On this view, the word "face" means (points toward) any or all faces we have encountered, while "George's face" would mean (and therefore, call up) the definite image from this collection that belongs on the image we recall by hearing the word "George."

This might explain why "George" doesn't mean anything, but only points. That is, the Greek word geourgos, which is what "George" is English for, means "farmer"; but no one who uses my first name is thinking "farmer Blair"; it is simply a tag to point to me verbally, and it precisely means nothing at all as such.²⁴ What this view of concepts and words says is that proper names have no meaning because they don't point to an area where there is a collection of images, but to one single image; while common words have meaning because they point to an area and not a definite image.

The trouble with nominalism is that we can use words *analogously*, where we know that there is a common *core* of meaning, but that there is no clear referent to make a collection of images. For

²⁴American Indians, they tell me, used to wait until a person had grown up and established his character, and then they would give him a name that represented the kind of person he was. Also, the "new name" that is (in *Revelation*) promised to one who has "won the victory" presumably will be something that expresses the essence of that person and does not merely point to him. In this life now, at least, the name is really just a pointer, without any meaning, just as "this" is.

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instance, we speak of the face of a dog, the face of a clock, or the face of a cliff. If you say the word "face" to someone and ask him to draw a face, it will invariably be a human face, not a dog's. One could argue, perhaps, that dog's faces are stored in an adjacent area, and you simply expand the collection to include them. But what do you do with the face of a cliff? Why would the precipitous side of a cliff "belong" in a collection with human and animal faces?

But then why do we call the precipitous side the cliff's "face"? Obviously, because we consider it the *front* of the cliff, and we think of the face of an animal as being on its front.²⁵ For the same reason we can talk about the "face" of a playing card as opposed to its "back," even when the "face" doesn't have a picture of a person on it (as a "face card" does). But how are you going to add this to your collection of faces? No, you would have to put on a very bold *face* to say that this theory stands up in the *face* of these examples.

That is, you can see how these usages of the word are *connected* with what is mainly referred to by "face." "Face" as "front side" is fairly obvious, once it is pointed out. To "put a face on" something probably comes from what someone does in making up a face that is less than perfect so that it appears more beautiful; my wife, in fact refers to making herself up as "putting on her face." And "in the face of" means "confronting" or "coming at you"—which if it were an animal would mean that its face would be the first thing to stand in front of you.

So there is a common core of meaning; but you don't get it from collections of objects referred to unless you see what the connection is

²⁵Notice, by the way, that the word "front" here is also being used analogously; there is no particular reason why the more sloping side of the hill couldn't be called the "front" and the precipitous side the "back."

among the objects. Simply presenting a person with faces of humans and animals and all the front sides of things that we call faces, as well as polished surfaces (also sometimes called the "face" of the object) or the part of a type slug that has the letter on it and so on and so on would simply cause confusion. You have to point out what all these objects have in common or how they are related to each other before you understand how the term "face" can apply to each of them.

So the understanding of the *meaning* of "face" does not come from just the collection itself; you only understand when you know what the relationship is among all the objects in the collection.

In fact, unless you can establish some connection among objects, there is no way you can consider them as a collection or a set. True, our brains do some automatic classification this way, but unless what underlies the classification is consciously recognized, then the result is confusion, not understanding, and the word in question does not *mean* anything to us. That is, show a person a collection of objects and tell him that they are all "shibboleths," and until he sees the connection, he won't know what "shibboleth" means. We will see something like this shortly. Hence, the mere pointing to a collection is not understanding.

If this is true of a collection of objects, it is even more true of what some people have hypothesized as the meaning of a term: the generalized image we form of certain things like faces. Just as a camera can take double exposures, our imagination, storing images, can store generalized images—so that when we hear the word "face" we can actually *picture* a generalized, blurry type of face. "Imagine a face," someone says. We have no trouble doing so. The outlines are not defined, but the eyes, nose (of indeterminate shape) and mouth are in the right places, and there is something of hair on the head and a chin on the bottom. The image we have is more or less what would occur on the film of a camera if you photographed a hundred

people's faces on the same frame.

The theory that this is what the meaning of face is says that what is done is then to fit the new percept into the generalized image, and if it more or less matches, then it is a face. This again would work with human faces and might with animal faces (though it is hard to see how the face of a fly would *fit* the generalized image of a face). But there is no way you could fit the face of a cliff or the face of a card into the *image* of a face; they don't look like one at all; and there would be no way you could use the word "face" in the phrase "in the face of" if you had to fit confronting a difficulty into the generalized image you have of a face.

Again, it is easy to see how they "fit" if you know how they are related to the primary sense of "face," which is what we make a generalized image of. That is, I am not trying to deny that we have generalized images, and that we can match them up with what is referred to by at least the primary sense of general terms. But these generalized images obviously have nothing to do with analogous uses of the terms, because they don't look like them at all. To use perhaps a clearer example, our generalized image of "triangle" is that of an equilateral triangle resting on its base. But then how does a "love triangle" fit this: three people with various love/hate relations with each other? Obviously, we "draw" emotional "lines" between the pairs of people, and after we have done this, we find something that has three "points" connected by three "lines." But emotional relationships don't look like lines between people; it is only after you have understood that any relationship can be represented by a line that you can now construct an imaginary triangle here. The point is that the understanding doesn't come from the image; the image is subsequent to the understanding.

So those two lines (note the analogous use of the word) of explanation don't work, because they won't even represent

understanding without our knowing the relationships involved; and that is different from simply being a collection or a generalized image.

Well then, can't understanding then simply be an *association* of images? This is a connection, and it seems that you understand when you see the connection. Bertrand Russell held this; in one of his books, he tells the story of giving his young son bread and calling it "bread," and then giving him a triangular piece and calling it "triangle." Then when they were walking outside, the boy looked at the triangular-shaped pavement and said, "triangle." Russell concludes that he associated the name with the shape.

But when you think about it, it isn't really all that simple. What made him pick out the *shape* to associate with the new word? Obviously, only the shape was new, and so it is what must go with the new word. But this is a *reasoning* process, not just a simple association. No, it is one thing to *connect* objects; it is another thing altogether to *know what the connection is*.

To illustrate this, take the pictures below:









What is the relationship among all these?

You will notice that you can find any number of different relationships, the more you consider the pictures. For instance, they are all pictures, they are all computer-drawn, they are all on the page, they are all computer-generated, they are all black-and-white, they

are beside each other and not above each other, they are all of material objects, they are all smaller than mountains, they are all objects whose names in English begin with "B," etc., etc. Which of these relationships is the "right" one? Actually, what I had in mind when I chose them was the last; but there isn't *a* relationship among these objects; they are related in an infinity of possible ways.

And the point is that as you look at them, they are all *connected* or associated in your consciousness; but the mere fact that they are associated doesn't tell you what the connection *is*, and you don't understand until you see what *some* relationship is. If you studied the pictures and were confused before you found some relationship, then you clearly see now that understanding is something beyond mere association.

In fact, when psychologists are trying to find emotional disturbances in people, they sometimes give them "free association" tests, where the person is supposed to say the first thing that pops into his head on being confronted with an image or a word. There, the patient is not supposed to think, but *simply* make the association; if he thinks, he will give the response that is logically demanded, not the image that follows from the one presented by the path of least resistance. Hence, the understanding of the relationship is something distinct from merely associating the images in question.

Of course, if my theory about instinct is correct, then if understanding were an association of images, it would be conscious as an emotion, not the "cold" kind of abstract idea we seem to have when we know the meaning of something.

Furthermore, if understanding were an association of images and/or perceptions, then how could we get *negative* concepts, especially specific negative ones like "not as black as"? I look at pages printed by my old dot-matrix printer (which used a fabric ribbon) and the ones printed by my new laser printer, and I understand that

the words from the old printer are not as black as those from the new one.

Let us analyze this for a moment to see if it makes sense to say that it is an association. Calling understanding an association must mean that the two images are connected; and the connection would then be what has to "pick out" the definite *aspect* by which the two are connected. For example, the two pages are both the same size and shape, they both have words on them. As I understand each of these concepts, then this would mean that I connect them three times, one along the "size" route of the nerves in my brain, one along the "shape" and one along the route that is the "words on it" connection.

But a negative concept, on this showing, would have to be a *non*-connection, or a disjuction. On this view, there is no pathway joining the two images. Then (a) how can both of them be in my consciousness at the same time, and (b) how can I recognize that this image is not connected *to that definite other one*? If it's not connected, it's not connected to anything it's not connected to. How does my consciousness pick out the definite other one that I now *understand* it to be unrelated to?

You might say that I tried to make a connection and failed, and the failure corresponds to the negative concept. But the problem here is that unless I establish somehow which other image I am going to try to connect, I can't try the connection and fail. But of course, the only way I could pick out some other image would be to *connect* the two.

Well then, suppose I do connect the two along some pathway where they are in fact connected (such as the "black" pathway). I then try to connect them along the "darkness" pathway and fail.

Now the problem is not how I pick out the two images, but how I pick out the pathway I want to connect them on out of the infinity

of possible pathways they could be connected or disconnected on. I suppose you could say that I just happen to send energy out along this one pathway (which would translate into consciousness as the previous statement, "I wonder if they're the same shade.") and find out that I can't make a connection. This kind of thing happens in computers when the programmer wonders whether there is a link between two pieces of data, and the computer tries but can't find any. Here, however, there wouldn't be any "programmer," because in order to make a *conscious* trial, you would have to establish a connection first using this path; so here it must be random.

But "not as black as" still has a difficulty with it. They aren't the *same* shade, but each *is* black, and each *is* dark; they just aren't the same *degree* of darkness; one is really dark grey, and the other is black. Now I *could* recognize "dark grey" as another color from black, and fail to connect the two either along the black pathway or along the dark grey pathway. But that would result in my not being able to recognize that dark grey is in fact an unsaturated sort of blackness.

So when I understand that the two are black, but not the same degree of blackness, I simultaneously know that they *are* connected in blackness (and darkness), but are "unconnected" in the extent to which they have these characteristics. Do I have in my brain *for each category* a scale of degrees, for which I have the negative concept "not in the same place on the scale"? Because any concept would have to admit of some kind of gradation, since the sensations themselves have an energy-dimension, and the connecting would also be some kind of energy, with its quantity.

But even "not in the same place on the scale" as a negative concept is not so straightforward. Both *are* on the scale, and so they're *connected* in the path of "being on the scale of blackness." To recognize that they're not on the same place, I would now have to

try to connect one image with the other by sending energy out along the pathway "place number 67.5 on the scale"; and this would mean for *every* distinguishable place on *every* scale of degrees of *every* aspect of *every* perception there would have to be a *separate* pathway for connecting images. For instance, the same would apply to "This blanket is not as soft as that one." Hence, only if there were all these distinct routes could you try and fail to connect the images and so come up with a negative concept.

And this is just a straightforward concept. Suppose we take what the sentence "John's car is not red" means when we know that it's true, not because we know what color John's car is (because he just went out to buy it), but because we know John refused to live in a red house, wear anything that has red in it, or even read a book with a red cover. The inference from these is that John hates the color red and won't have anything to do with it; and that is the basis of our knowledge that whatever color the car is, it isn't red. So here you are disconnecting John's car from the set of red objects along the "red" pathway. But it isn't that you tried and failed to connect them (because you haven't seen John's car yet, and you don't know what it looks like); you know beforehand that there isn't a connection, not because of some previous trial to connect an imaginary car to a set of colored objects, but because of what you know about John's character. That is, since this is the result of a reasoning process, the actual route from John's car to "not-red" is through the character, not an attempt at connection that failed. Here the connected disconnection is made by a route that isn't even the pathway they aren't connected on.

And even with affirmative concepts, like the pictures above being all "B"-objects, look at what the connection would have to be like. In order to understand this, you would have to say the names of the objects to yourself *in English*, then notice that the words all began

with the same letter (here's the real connection, though in Spanish, for instance, it wouldn't work: nene, chico, omnibus, venda or "curitas") and then connect the pictures along the "pathway" of "having names that begin with the same letter." Really, now! This would have to mean that for every image there is such a pathway; and so if we notice that they *aren't* B-objects in Spanish, this means that we tried to connect them along the "having names that begin with the same letter" path *going by the Spanish route* and failed. This of course would mean that we have a *distinct* pathway for *each* letter for *each* language we know (and presumably all the ones we can later learn, because these have to be built in somehow) by which the words are connected, and another pathway by which the objects can be connected based on whether their names are connected along a given one of these paths or not.

Finally, notice that this business of connecting the images along a given pathway would have to entail also that we know what the pathway is. This in itself would be no problem, if the connecting act is immaterial, with a conscious "dimension"; but the conscious "dimension" of the act of connecting is, as I said, an emotion, not understanding what the connection is. The emotion connects, and the connecting is conscious, but it is not conscious as a connection; it is an attitude toward the object in question. Your hostility toward John doesn't tell you what it is in his face that makes you want to punch it; it doesn't pick out the precise aspect of John and see how it is related to something else.

For all these reasons, then, it seems safe to say that understanding can't be just a collection of objects, nor a generalized image, nor even an association of images, however complex. In fact, the more complex and indirect the relation understood, the less likely it is that it would be a connection.

So we can draw our first conclusion of this section:

Conclusion 1: Understanding is a distinct act of consciousness, different from sensation.

And our investigation will now allow us to define it, and also say in a preliminary way what "meaning" means:

Understanding is the act by which we are conscious of what the relationship is among parts of a given sensation.

The *meaning* of a sentence or word is the act of understanding that it is calculated to awaken in the hearer's or reader's mind.

The reason for the last phrase in the first definition is that even an association of images has to have both images in consciousness at the same time in order to be conscious of the relation between them; but this means that in fact there is only *one* polymorphous act of consciousness, and the two "images" are in fact parts or aspects of the same act.

As to meaning, we have seen so far that words like "George Blair" can point, without meaning. What such words do is call to mind an image or set of images for the hearer to use as the basis of understanding, and then something meaningful is said about these words. Thus, "George Blair is a philosopher" *means* as a sentence that this man has what makes him the same as other philosophers, and "philosopher" as a word *means* doing things like trying to find the evidence dealing with what life is all about.

But we will discuss words and their meanings a little later. Suffice it for now that the "meaning" of anything is "what is understandable" about it, and this has something to do with what relations it has, internally or with other things.

Chapter 3

Understanding as spiritual

But now, having established that understanding is a distinct act, the question arises whether it is immaterial (with an energy-"dimension") or spiritual (without one). Clearly, since it is conscious, it must be at least immaterial.

Let us first establish what is entailed in being conscious of what a relationship is between parts of a sensation. This will show that such an act *must* be spiritual in at least one "dimension" of itself.

First, you have to define which parts of the sensation are to be related (i.e. which parts of the total polymorphous act of sense consciousness are the "images" (or, of course, percepts) associated which form the *termini* of the relationship: the "objects" connected by the connection).

Second, to do this, you have to already know that there is a relation of some sort between them, or they merge together into the one complex sensation. Hence, *before* knowing what parts are connected by the relationship, you must already know that there *is* one, which would, of course, involve knowing what *sort* of relation it is (i.e. similarity, position, causality, etc.). Obviously, the different types of relations will determine what parts of the conscious act are to be interrelated. So this "step" can't really be second; it must have already occurred in order for the first step to be possible.

Still, you can't just have a relation and hunt around for relata or termini; you would have to know what it is that is related before you

knew what the relation is; so this step, which has to occur before the first step, also presupposes the first step—but at the same time is subsequent to it.

I think you can see why I said that this kind of an act must be spiritual. But there is more.

Third, you can't know what sort of relation you understand between two images until you know what aspect in each image is the foundation for the relationship. For instance, how could you know that the two pages are similar without knowing that they were similar in blackness? Knowing that they are similar makes no sense unless you know in what respect they are similar. Plato mentions or implies something like this in his arguments for Aspects as realities. His contention is that you can't know whether something is courageous unless you know what courage-itself is—which sounds reasonable enough. Hence, the aspect in the images by which the relationship is possible must occur before you can know any relation at all—which means that it must occur before the first step, because you can't know what parts of the act of consciousness are related without knowing the relation, which presupposes that you already have picked out the aspects of each part by which they are related.

But of course, how could you pick out the aspects if you didn't already know what kind of a relationship you were dealing with? The two pages are related to me as their cause; but how could I know the being-affected of the pages (the in-itself contradiction involved in their not having printing on them and then having printing, given that neither of them grows print) and my writing that caused them—if I didn't know that it was causality that I was dealing with? I happen to be wearing shirt that is mostly white at the moment, and the pages are mostly white; so there's that relation between them and me; but this is similarity, not causality, and it presupposes entirely distinct aspects. So I would have to know that I was dealing with

similarity to pick out those particular aspects. But until I know those aspects, I can't see what the relation is.

Similarly, I would have to know what parts of the sensation are the parts to be interrelated before I could pick out the aspects of the relationship; but in order to single out just these parts of the sensation, I would first have to know that they are to be related somehow; but I can't know that unless I see *some* relationship, which, as I said, presupposes that I see *some* aspect by which they are related. Even in the pictures above, you would have to understand them *as* a set of objects to be related (i.e. as parts of a puzzle) in order to find another relationship among them; hence, you have to know some aspect of them before you can find an aspect of them.

If you are confused, this is because the act of understanding cannot take place in three steps; they must all occur together in one act, or knowing the relationship is impossible.

Hence, having a grasp of what a given relationship *is* can *only* be done by a conscious act, which contains itself within itself and knows itself while it is doing what it is doing.

And this, of course, is what Plato missed in his argument for the reality of the Aspects as such and our "prior" knowledge of them. It would seem logically that in order to know whether something is a tree, you have to know what "treeness" is first; but in fact, to know "treeness" you have to know that all these objects are the same—if "treeness" is (as I think it is) the foundation of a relationship. But the point I am making is that, in knowing relationships, logical priority is meaningless. When the first person who thought of trees got the first concept of "tree," he understood in one and the same act that these objects were all the same in this aspect; and the aspect came together with the relationship when "the light went on" in his head and he understood.

Of course, when we understand something like what "tree" means, we are dealing with a concept that has been used for

millennia by people from bricklayers to botanists; and for most people, the concept of "tree" is not very clearly understood.

But what can "clearly understood" mean, if the act is spiritual and has no quantity as conscious? It really doesn't mean that the concept itself is vague. What happens in an "unclear concept" is that a person who understands a concept expressed by a word everyone else uses (like "tree") sees an aspect, but is not sure if this aspect applies to all (the things other people call) trees and *only* trees. That is, he might understand "tree" as "large leafy plant," because all the ones he has seen are large and leafy. But then he sees conifers, and realizes that the "leaves" can be needles, and be evergreen; and if someone shows him an ombu, that Argentine bush that can grow fifty feet tall, but has many "trunks" instead of one, his concept becomes more refined of the aspect itself: that all trees have a single woody stem, whatever their size. In this sense his concept is clearer. It is not that the original one was unclear, exactly, but that he might have picked out an aspect (clearly known) that he wasn't sure was the right one for the set of objects that everyone else calls trees.

Hence, what are called "unclear ideas" mainly refer to figuring out what the meaning of a word is; that is, trying to make sure that the relationship-aspect you understand is the same as that of other people who use the same word. But again, this belongs to the subject of language and its relation to understanding and to the real world, which will come later; I just wanted to clear up the problem of understanding's spirituality and unclear ideas.

In any case, given that being able to grasp what a relationship is entails this presupposition (and therefore logical priority) of "steps" that logically have to come later, we can immediately draw this conclusion:

Conclusion 2: Computers cannot understand or think. They

never could, and they never will be able to.

That is, those who talk about "artificial intelligence" might be able to make computers mimic *animal* intelligence and learning (which consists, as far as we know, of nothing more than [conscious] connecting, without knowing what the connection is), but will never be able to mimic human understanding. There is no way any electrical connection can "double back on itself" while it is connecting two somethings, so that it can identify what it is doing while it is doing it.

True, programmers may make the computer connect things because *they* understand what the connection is supposed to be, and in *this* sense the computer can mimic human understanding—i.e. it can mimic the *results* of human understanding. But this is a far cry from being presented with a set of objects and discovering a totally new relationship among them, one that you were not programmed to look for, and seeing new aspects in them that you hadn't any previous awareness of.

This sort of thing can't happen, if our reasoning above is right, unless the confrontation with a multiplicity triggers an act that "reads into"²⁶ it a relationship and so "discovers" a new aspect in the objects; but it can't do that unless it knows what it is doing while it is doing it, or is self-transparent.

So "Hal" in 2001:A Space Odyssey is an interesting conceit of the author; but, though computers were able to "talk" by 2001, and though the programs may be self-correcting and "learn" from mistakes, they still won't think. The leaps of children who have just

²⁶This is a translation of the etymology of the Latin *intelligere*, which is that language's word for "to understand."

begun to talk and who invent new words to deal with the new concepts they have discovered is infinitely beyond what any computer can do—and in fact infinitely beyond what any animal we have so far observed can do, as the experiments with chimpanzees brought up with children attest. The chimps learn quicker for the first few months, when learning is a question of acquiring data and fitting it into preestablished slots; but when new insights begin to occur in the child, the chimp is left far in the lurch.

So those who are searching for "artificial intelligence" in computers would be better advised to concentrate on complex linkings that can be corrected when a certain input ultimately results in something that the programmer puts in as "undesirable" along some scale of "undesirability," as in the loss of a game of chess. The computer would search back through the game for the move that brought on the loss (and there are ways of programming this), and then delete that particular response as an option when confronted with that move by the opponent in the same situation. Needless to say, such a program would be hideously complex; but it is, I think, in principle possible. The point here is that doing this sort of thing is not *understanding* or *thinking*. The relationships are all given to the computer, not discovered by it.

I might add here that people like Karl Marx and many evolutionists, who hold that thought is an epiphenomenon of language, which itself is the result (in Marx) of using tools and being together with others (and so trying to dominate them), have theories that just don't hold water. Such theories naively assume that there is a kind of one-for-one correspondence between a word and an "object" (or in the Wittgenstein of the *Tractatus Logico-Philosophicus*, an "atomic fact," which he apparently takes to be a definite aspect of some object), when our analysis shows that this can't be the case; they refer to relations *between* objects, which don't exist *as such* at all, and are thus not, as I have been stressing, something which is just the

"conscious dimension" of something material.

In that sense, the later Wittgenstein was right in calling language a "game"; because it has a certain arbitrariness, since words mean whatever the person who invented the word (or the society in which it is used) choose to make it mean—that is, they stand for and refer to the relationship the inventor "picked out" of the infinity of possible relationships. But it isn't totally a game, because there *is* a relationship that the word means. Granted, which set of sounds you use to stand for this relationship is arbitrary, but the point is that language is only superficially like a game of chess, where the knight's move is what it is not only because the inventor of the game decided that it would be the knight that moved in this way, but because the move itself could be anything, and was arbitrarily chosen to be this. But we haven't seen the relationship of language to thought yet.

Besides, we haven't ruled out that understanding might be in itself spiritual, but have an energy-"dimension" and be a different *sort* of immaterial act from that of the sensations other animals have.

But actually, we have. If you go back to the discussion on specific negative concepts, you will see that, not only *don't* they have a connection, they *can't* have one. There is no "link" that could correspond to "not as black as," as I was at pains to point out. And, of course, if a concept (a relationship understood) is to be immaterial, its energy-"dimension" would have to be some kind of nerve pathway.

Therefore, we can draw the following conclusion:

Conclusion 3: Understanding is a spiritual act; it has no energy-"dimension" at all.

This, however, does not mean that understanding has no *relation* to energy, because it uses the conscious "dimension" of sensation as

the relata or termini of the relationship-aspect understood; and, of course, the sensation has an energy-"dimension."

The Scholastics say that understanding has no *intrinsic* relation to "matter," but only an *extrinsic* one, for the reason I just gave above. The (immaterial) act of sensation (which, as you will recall, in Scholasticism has "the conditions of matter" without the matter itself) is used as the "material cause" of the act of understanding. By this is meant that the sensation (which they call only the "phantasm" or the "expressed appearance" [the conscious form] of the act of imagination) is the data that understanding uses for its own act. For them, as for me, the sensation does not *cause* (in the sense of efficient cause) the understanding; understanding acts *on* the "phantasm." But it has to act on *some* sensation in order to understand at all—at least in this life, when God does not miraculously take over the "intellect" in the mystical experience.

The only real difference between this and my position is what is implied in the definition of "immaterial." For the Scholastic, materiality is not the same as energy (i.e. with a quantity), but only connected with it; and so the immaterial act doesn't have a "material" (quantitative) aspect to it—which for them would mean that it actually had a size and weight—but only copies, as it were, the individuality and position and so on of material objects. For me, of course, the sensation is spiritual but with an energy-"dimension" in one of its "reduplications" of itself.

My view is that understanding (a purely spiritual act) uses—as the range within which it can understand—the spiritual "dimension" of the sensations, ignoring their energy-"dimension" altogether. Thus, the act of understanding is totally conscious, because all it contains is itself (spiritual and conscious) and the conscious aspect of the sensation which provides it data to see the relationship in. In this sense, it is "intrinsically" spiritual and "extrinsically" related to quantity or "matter."

Chapter 4

Abstraction

Perhaps I could better elaborate on my view of what is going on in understanding if I gave the Scholastic view first; because my view differs from it in several serious respects, though I think it is a development of it, and the Scholastic view is rather incomplete or unrefined than erroneous.

For Scholastics, then, what happens first is that there is a "phantasm" in the senses. What is called the "agent" or "active intellect" (the intellectus agens or "intellect acting"), as what Aristotle calls a "state like light," then "shines on" the phantasm and illuminates it, more or less as the sun shines on a tree, making its colors active. The "illuminated phantasm" then either "impresses an appearance" on the "passive intellect" (the intellect as passive), or the "agent intellect" somehow uses this illuminated phantasm to impress the appearance (species) on itself. The intellect is now determined to perform its proper act, which is the "abstracting" of the appearance (the aspect) from the illuminated phantasm, and forming a concept, which is its "expressed appearance." This act of the intellect is called "simple apprehension," since it understands (the concept), but does not understand anything that could be called truth (a fact). That is, "tree" is the result of this act of the intellect; and of course "tree" or "treeness" is neither true nor erroneous; it simply is what you might call "meaning as such." The Scholastics sometimes refer to the

concept as the "mental word."

Having found a concept, the intellect, according to St. Thomas, then returns to the senses and "sees" or does not see the concept in the sensation (and I suspect that this isn't just the phantasm, but any sensation). It also understands the concept as applying or not applying to the *object* referred to by the sensation. This operation of understanding is what the Scholastics call the "judgment" or the complete act of understanding, where the truth is known or error occurs.

Presumably, formation of an actual word (some sensible sign for the concept) comes after all of this.

Now, my view:

What I think happens in understanding is that, first of all, the presence of *any* sensation in consciousness²⁷ acts as the "switch" that turns understanding on and off, and so the *conscious* "dimension" of the immaterial act of sensation is the pseudo-faculty for understanding. It isn't a true faculty, because in my system of

²⁷Or perhaps consciousness above a certain level of vividness. The problem here is that dreams are conscious, but not fully conscious, or we would recognize them as acts of the imagination and not perceptions (we would know we were dreaming). Also, the "logic" of dreams is bizarre (following the path of least resistance among the nerves, as I said), and often not something that a person would deliberately follow. Further, sometimes in dreams, there is a confusion between the subject and the object, as when a pain, for instance, appears as some alien thing attacking one. Still, there is some consciousness in dreams, but it is at least mainly on the sense level. Presumably, the intellect is to some extent operative here, however, because we do seem to do some rudimentary conscious reasoning—though this again might be just awareness of the "logic" of the dream itself, and the consciousness on the level of the senses, since there generally doesn't seem to be a notion of "self" along with it. It is all very mysterious, and once again shows that you can't make a clear separation between different types of consciousness in humans, because we are not simply spirits that have a body attached to us, but material spirits, whose spirituality is modified by the energy="dimension" of what we are doing.

thought, a faculty is a part of the *body*, and this, though it involves energy in the brain, is the *spiritual* aspect of that energy.

Hence, the first thing we can say is this:

Conclusion 4: Understanding, strictly speaking, has no faculty, since it is totally spiritual. It does, however, use the conscious "dimension" of sensation as a pseudo-faculty.

The other difference between a true faculty and the sensation's role in understanding is that, with a true faculty, the change in the part of the body *determines* the act in question—as, for example, opening your eyes forces you to see, and see with whatever form corresponds in consciousness to the energy coming into them. But we saw that the sensation *cannot* determine what relationship is understood, because it would have to do so by means of a connection, and with certain concepts, no connection is even possible—which leads to the conclusion that no connection is involved in *any* act of understanding.

What actually must turn understanding on and off is what regulates whether a sensation is conscious or not; and this, as we saw in the preceding chapter is *instinct* in its attention-function.

Another conclusion follows from this:

Conclusion 5: You cannot understand anything that you are not paying attention to, because it is not conscious (or does not have the proper level of consciousness); hence, instinct (and emotions) can *indirectly* control understanding by directing attention to or away from certain sensations.

That is, if you are in a situation where an emotion is very strong, then all that you have in your sense consciousness at the moment is

what the particular drive puts there; and any information that might otherwise be available to you is blocked out. You can still *understand*, but only about what is actually in your consciousness.

This, of course, is the basis of the plea of "temporary insanity" in law, which says that a person is exculpated from a crime if he is in a condition where he could not distinguish right from wrong. The novel *Anatomy of a Murder* of some years back is an imaginative exploration of this defense. The protagonist comes home to find his wife being raped by someone, as I recall; he then leaves, finds a gun, loads it, finds the rapist, and shoots him. The prosecution argues that he was *compos mentis* because he took the rational means toward the goal of having the rapist die; but the defense argues that in the situation that triggered the act, *all* he could think of was, "This man must die!" and any consideration like, "He is a human being and human beings have a right to life no matter what they do" was simply below the threshold of consciousness and was not available to him as something to be understood.²⁸

This is also the basis of the practice of "brainwashing." If you can so restrict a person's sense consciousness, by exhausting him and battering him constantly with just certain definite data ("You *did* go into that room and you *did* see the documents and you *did* hand them over to the enemy."), then unless he has enormous powers of concentration (and can say mentally while he is being told this, "I never went into that room; what he is saying is a lie,") his imagination will become saturated with this lie, and he will confuse

²⁸Actually, as I recall the novel, he *was* conscious of the right and wrong of the situation and lied in court about his mental state at the time. But this is irrelevant, because it *does* happen sometimes that a person's emotions sometimes completely blind him to information he would otherwise know. Most often, of course, he is aware of the information, but at a low level of awareness, such that it has only a small influence on his action.

it with what he used to remember, and will *understand* that he actually did the act and *willingly confess* to the crime. You haven't "destroyed his will," but you have destroyed his access to information, so that he freely chooses something that he wouldn't otherwise have chosen.

Obviously, the most important ramifications of this are in the area of human freedom and choice; but the discussion has something of a place here because, as we will see, choice depends on *what understanding understands at the moment*, and not on information latent in the brain and not conscious. We make all sorts of ignorant choices, not because we don't *have* the information, but because we aren't *conscious* of it at the time.

Let us take stock of where we are so far, then, in relation to the Scholastic theory. For both, sensation triggers understanding; for the Scholastic, it is imagination (the "phantasm"), and for me it is instinct as making *any* sensation conscious.

Now then, once sensation is conscious, the human spirit is active as "understander." I also, by the way, would not divide up the spirit into different "faculties" of intellect and will, because in a spiritual act, everything is contained within everything else as one and the same act, and so no real separation is possible, as what I am about to say will show.

Understanding then *examines* the conscious sensation, looking for a relation in it. Usually, it has some prior expectation (from what it has just been doing) as to what sort of relationship it is looking for; but sometimes—as with the pictures above—it is just "wondering," or "curious." Let us call this stage, which can be quite protracted, *puzzlement*. This active "looking" at the sensation by understanding is what I think is what the Scholastics, following Aristotle, saw as the "active intellect."

Puzzlement often involves searching around in the vast filing-system of the brain for something else to make conscious as a

kind of "window" in the screen of consciousness of the present moment; and this kind of thing can last for days, and one even can go to sleep with the "search" program still operating below the conscious level, but with something about it that will make it stop and turn consciousness back on when something promising is discovered.

To take a simple example, you find that your table is tippy. You tip it as far as it will go and notice the space between the leg and the floor. You then go through your memory of things, mentally finding objects which you mentally slip between the leg and the floor, imagining whether they fit. When your imagination makes one fit, you then understand it as something that will solve your problem, and you go and slip it under. But the process leading up to this understanding happens on the sense level, though it is driven by the spirit wanting to solve the problem.

I might point out that this sort of things is what animals do in solving problems, except that (a) there is no *understanding* of the fact that the conclusion solves the problem (at least, there is no clear evidence that they make this act; apparently they just go from the conclusion to the action), and (b) their process of successive imaginings is driven by instinct, not by understanding in its active phase. This is one of the things which makes tests on animals as to whether they can understand so difficult.

As I say, this whole process can go on below the threshold of consciousness, which clearly indicates that it is something going on in *sensation* (or even in the brain, below sensation's threshold), not understanding. Many is the time I have waked up with solutions to problems I could not solve while deliberately reasoning about them, because my *understanding* of what would be likely to solve the problem made me make the search into the logical areas where it would be solved, and not into information that had no *a priori* connection with it.

At this point, I should mention that the genius-type of mind is a certain way the *brain* works in connecting information, as well as (or even more than) how much information can be conscious at once. Obviously, a genius has to be quite bright also (meaning that he has to have enough energy in his brain to make conscious a large amount of information), or his odd associations will simply make him eccentric, not a genius.

What distinguishes a genius from the ordinary bright or brilliant person, and what enables the genius to make breakthroughs, is that he connects all sorts of irrelevant information to a given piece of data, along really strange pathways in the brain. The association-function of his instinct almost works at random, or has a built-in (and unconscious) logic by which non-normal sequences of images occur. This, of course, is why geniuses are eccentric; they don't "think like" other people. It isn't that they don't think the way other people do, it's that what they think about isn't the kind of sensation that other people have, because it contains within it odd sorts of remembered images.

This makes them hard to live with. You could probably train yourself to have something of this kind of mind, if you made random associations as you contemplated a given object; but why bring on yourself ridicule for all the crazy things you connect to something, only some of which will turn out to have any relevance at all? Why put yourself in a situation where your conversation with others will jump erratically from topic to topic as your mind leaps to another subject just because of a similarity in something like sounds of words?

And of course, the brighter you are, the more strange things will pop into your head and stick there, because a bright person has more of the "file drawers" in his brain accessible to consciousness, and can go from one to another and then to another and come up with a conclusion as startling as Archimedes' understanding of the relation between the water slopping out of his bathtub to whether the King's

crown was made of gold or not.²⁹

Since I am obviously a genius-type, however intelligent I may be, I can say from personal experience that if you don't happen to be one, you have nothing to regret. You may not make some startling breakthrough, but people are a lot more apt to understand you than if you are like me. Even the things that I write, like this book, are perfectly clear to me, but apparently are bewildering to people who read it (judging from my students' reactions), because they don't have the way of linking the data so as to have the right information in their consciousness at once, enabling them to see the relations I see. If you are one of the confused ones, I applaud your persistence in getting this far, and I can only say that if you keep at it, you will eventually (I hope) see what I am driving at, and in a generation or so (as it was with relativity) what is now almost incomprehensible will become conventional wisdom that "everybody knows." That, at least, is why I am writing this; and I must have succeeded if you are reading it.

Since the associating leading up to these breakthrough insights often goes on below the conscious level, and can be very complex, it is not always easy to reconstruct a rational argument from the

²⁹In case you don't know the story, it is this: The King asked Archimedes to find out whether the goldsmith had made his crown of pure gold or had sneaked in some lead. Archimedes knew that a given amount of an alloy would have a different weight from the same amount of gold. There was no problem with weighing the crown, but you couldn't find the amount (volume) of metal in it without melting it and making an ingot, which of course would destroy it. Archimedes was pondering the problem in his bath, whereupon he noticed the water slopping out of the tub and ran naked into the street, shouting "I've got it!" (*Heureka!*) What he understood was that the water was getting out of the way of his body, and so all you had to do to find the volume of the crown was sink it in a jar full of water and measure how much water spilled out.

premises to the conclusion, even though the insight at the conclusion carries with it a very strong conviction of its truth. One fairly hard task geniuses have is to "trust their instinct," and just let it work without trying to direct it. It is a hard task, because the conclusions are very often imbecilic, and only rarely brilliant; so after letting go and getting an insight, you have to make your spirit take the reins again and think the matter through. The "one part inspiration" Edison talked about in his definition of "genius" is this popping into your head of something that could be the solution, together with the conviction that it is the solution; the "ninety-nine parts perspiration" is the testing of the idea.

In any case, to get back from this digression, associations by instinct call up into consciousness various memory-images that are additional "dimensions" of the polymorphous act of sensation, and that form the data or information which understanding first examines.

At this point, I differ most radically from what Scholasticism says—though I think it is a development of it. Now everything happens at once. The human spirit now *freely determines itself to understand a relationship*, using the sensation that is conscious as the *range within which* it selects a relationship-aspect. The actual relationship and aspect "picked out" is *not* determined by anything in the sensation; the spirit is free to understand *any* of the infinity of relations (with their aspects) that are possible in this sensation.

That is, the aspect understood must actually be in the sensation, in one of its "dimensions," or it can't be understood; you can't get the concept of "megabyte" from looking at a landscape; but if you are looking at a landscape, you can understand it as colored, as needing the lawn mowed, as your own back yard, as a place for your dog to roam, etc., etc. As I said, you can direct yourself toward a definite concept, but you are free to "pick out" any one you want; the sensation itself only sets limits; it does not lead understanding

on.³⁰

This is one of the reasons why I said you can't separate the spirit into distinct faculties. The very act of understanding is an act of choosing (supposedly what the "will" does), because it freely picks out which relationship-aspect to understand.

The Scholastic view does not seem to hold this, although there has not been any rejection of it, because for them the question never came up. At any rate, their theory *seems* to imply that understanding is somehow determined by the illuminated phantasm, so that even though the intellect is what is active, the state of the phantasm prevents it from understanding anything but this definite concept. I don't agree.

Also, in my view, there is not any separate stage of "impressing an appearance" on the spirit and then "abstracting a concept" after which comes the judgment. All this happens as one polymorphous spiritual act. The judgment contains the "simple apprehension" of the concept, and is not subsequent to it; and it doesn't have to "return to the senses," because it never left the sensation; the spiritual "dimension" of the sensation is part of the act of understanding as the relata or termini of the relationship-aspect understood. Nor do I think that there is an "expressed appearance" of the concept (the relationship-aspect), at least in the sense in which I think some Scholastics mean the term. The relationship-aspect is not a product or result of the act of understanding, any more than any form of consciousness is a product of the act; as we saw in sensation, the "appearance" is simply the form of the act itself—the way the act is acting—and it "appears" as a pseudo-object of the act simply because the act, as conscious, is aware of itself and so of its

³⁰Or if it does, it does so gently, so to speak, by suggesting possible relationships that look promising. Again, it is all very convoluted.

form.

Let me define a couple of terms before I go on to describe all that is contained in this single polymorphous act of understanding.

A concept is the form of the act of understanding as such; it is the relationship-aspect understood.

Abstraction is the act of "picking out" a given concept from a sensation, leaving all other possible relations-aspects not understood in this act.

A concept is *abstract* in that it concerns itself with only one relationship within the sensation in question, and deals with only one aspect of the parts related, leaving everything else out of consideration.

A *judgment* is the complete act of understanding, containing not only the relationship, but the conscious "dimension" of the sensation as well as the consciousness of the self.

The term *idea* is vague, meaning primarily *a concept*; but it can also mean *a judgment*, or even, in some contexts, *a sensation*.

Let me dispose of the last term first. The first sense of "idea" would be something like, "the idea of liberty," where what is clearly intended is the meaning of the term "liberty," and so is the concept, not any judgment nor any symbol of liberty (like the statue). In the second sense, we can say, "What is your idea of how I should go to Boston from here?" Your "idea" would then be the *judgment* that in fact the best way would be to go through upstate New York. (You could then justify this idea—judgment—by showing that it is a

conclusion of your knowledge as to the state of roads in New York as opposed to Pennsylvania.) Finally, you can talk about your "idea" of what your new house is to look like. This is not a judgment, but your imaginary *image* of the proposed house.

It is this last sense of "idea" that was used by Descartes (and picked up by people like Locke and Hume), when he threw epistemology into the confusion it has been in right up until now, as I pointed out in the early chapters of Section 5 of the first part. You will recall that he took the Scholastic notion of "truth" as the matching of the "idea" with the object, but not in the sense the Scholastics intended (the matching of the *judgment* with the object), but in the sense of the matching of the *form of the sensation* with the energy that produced it (meaning that it is only "true" that the bushes out in my back yard are green if they are "green-as-I-see them"—as clearly they are not, since I don't see them as higher frequency heat—and so "the bushes are green" is false, which is manifestly absurd).

As to concepts, a concept is itself only one (abstract) aspect of a judgment, not something that comes before it, as the Scholastics thought. True, it is the aspect by which this act is an act of understanding and not sense-consciousness; but there is more in understanding than a concept. The concept is not the *result* of the act of abstracting, it is the *form* of the act of abstracting, which act is the judgment and is the same as the act of understanding. There is no *real* difference between the concept and the judgment, because each contains the other within it, just as all "dimensions" of any act of consciousness do.

And this is obvious from the fact that the concept *immediately knows itself* to be applicable *beyond* these particular images whose association gave rise to it, to *any* perception/image that has the aspect in question in it (and to any object that has the corresponding aspect).

It is this self-awareness of the concept (or, if you will, self-awareness by the judgment of its own form of activity) that gives us two different words for any concept: what the Scholastics call the "concrete universal" and the "abstract universal" term.

Let me first define "universal."

A concept or word is *universal* if it applies to an infinity of possible objects (all the objects with the aspect in question).

Obviously, this definition would also include the pseudo-objects of the forms of consciousness themselves. But to return to the two terms above, the "concrete universal" is a word that stands for the concept as applicable to some object, while the "abstract universal stands for the concept as such (i.e. just the relationship-aspect, independently of whether it can be applied to some image or object). For example "tree" and "green" and such terms (which can be predicates of a simple sentence such as "X is ..") are concrete universals, since they are of a form which allows them to be "attached" to some concrete object. It is not that they are concrete; but they "attach" to something concrete. "Treeness" and "greenness," however, are abstract universals, since they just refer to the relationship-aspect itself, and can't be predicates of a statement using "to be." If you want to apply them to a subject, you have to use the verb "have," as in "This tree has greenness."

This points up a difference between concepts and words. The *concept*, as spiritual, is *both* "concretely" and "abstractly" universal, since it knows itself as applicable in this and similar cases, and it also knows what it is in itself. But *words*, being material (i.e. involving energy and therefore quantity), cannot double back on themselves and be aware of what they are; and so they have to separate out each of the "reduplications" that are contained in the act of consciousness

they stand for, and can only represent one at a time.

This is also true of the fact that the concept is simultaneously *both* the relationship itself (similarity, causality, position, or whatever) *and* the aspect in the images connected by this relationship; and in fact the judgment *also* contains within the concept (its form) the particular images in which the aspects exist, as well as what is implied in this.

But *words* can't carry all this freight. Any given word, as it is used, will have one or other of the three "dimensions" mentioned above, and will only *imply* the others. Let me make a definition of this:

The *supposition* of a word is one of the "dimensions" of the polymorphous concept it stands for.

Thus, the supposition of "green" in "The bushes are green" is that the word expresses the aspect that all green things have in common, and implies the relationship of similarity. The supposition of "the father" in "John is the father of Frank" is that the word expresses the relationship of John to Frank, and implies the aspect in John by which he is Frank's father and the aspect of sonship in Frank. Also, in the statement, "The father of Frank is gray-haired," the word "father" now has the supposition that it refers to the object in question, and doesn't mean anything in this supposition, but only points. There are other suppositions of words also. For instance, you can say "Green is a five-letter word," in which you are using the supposition of the orthography of the word; or "Green is the subject of this sentence," taking the supposition of grammatical function of the word. And so on.

Various logical fallacies can arise from confusing suppositions. For instance, "Clint Eastwood is a star, and star is a four-letter word, and therefore Clint Eastwood is a four-letter word" is an obvious fallacy,

because "star," though the same *word*, is, as we will see, two different *terms*, and so no logical link is forged through them between the initial subject and the final predicate. But we will discuss this later in going through logic.

Ordinarily, the supposition of a word is not spelled out, because its context makes it obvious which supposition it is taken in—and there is no need for it to be explicitly stated, since anyone who knows what the word means knows all of the suppositions in that act of understanding.

So much, then, for concepts. Now what is contained in the judgment? I mentioned already that it contains the conscious "dimension" of the sensations as the termini of the relationship in question, plus the concept (of course, since this is its form), which is simultaneously the relationship itself and the aspect in each sensation which is the "hook" for the relationship. But since it is conscious, it also contains itself as conscious; and this involves several things. First, it is aware of understanding, and of understanding this concept in these sensations (actually, these parts of the sensation). Second, ³¹ it is aware that it itself is greater than just this act (that it has understood other things), probably because it is aware of itself in its active phase limiting itself to performing just this act—and so it is aware of the *mind* that we talked about in the first part as the cause of the unity of one's consciousness. Third, it is aware of the self which includes (or rather is, as a unit) the body as the causer of this act of understanding (and so it understands the "I" in the ("I think that") of any act of understanding in the two senses of the mind and

³¹There is no order to these things I am listing, of course, because all of them are "dimensions" of one and the same act and occur simultaneously. I am simply enumerating them for the sake of clarity.

the self which has the mind. Fourth, it is aware of whether the sensations are active (imaginings) or passive (perceptions), or whether the sensations are logical conclusions whose ultimate source is imagination or perception; and through this, fifth, it understands whether the judgment is a judgment about actual objects or not (as when I understand about the greenness of the bushes I see, I realize that the *bushes* are green, not my perceptions of them; whereas when I understand that my pet unicorn is blue, I realize that I am in the purely imaginary realm, and that my understanding cannot be "mistaken" because it can't be true. Hence, understanding also, in this same act, understands *facts*.

At this point, it might be useful for you to go back to the first part and reread the section on truth and goodness (Section 5). I am here redeeming the promise I made in the second paragraph ("I want to leave until much later what this means for the act and the person"); but the epistemological function of understanding might have been forgotten with all the intervening pages.

Let me say here only that the reason we understand is that it is only through understanding that the *being* of ourselves and what is not ourselves becomes present to our consciousness, because (as I pointed out in that other section) being is known as such in the judgment, and the judgment is where objective knowledge and truth occur.

In this, I concur with the Scholastics, especially the Thomists, and differ from them only in that for me what is objectively known is a *fact*, which is a relationship among objects (or within parts of one), rather than an "essence" as if the essence were some kind of a metaphysical part. That is, for me, the "aspect abstracted" is known only as the "hook" by which this relationship attaches itself to objects, and is not something actually "pulled out" of them by the judgment. Granted, both of our views are mysterious—because what we are dealing with is a mystery—and may in fact, if pressed, turn out

to mean the same thing.

You will remember that in the integrating function of sensation, with its form of subjective space, what is "outside" becomes present to the animal, and with the dating function, with its form of subjective time, the past becomes present to the animal. Here, the outside becomes present *as* outside, the past is present *as* past, the object is present *as* other, and the subject present *as* subject. Hence, what the subject *is* as well as what the subject *is not* are both present as such to the subject.

Understanding also, as I pointed out in Chapter 4 of Section 5 of the first part, is the only way a conscious *reaction to* something can know what it is that it is reacting to, without ever getting outside the mind to "see" the object "as it is in itself."

Chapter 5

Language

But this is not all there is to understanding. Since understanding realizes that the concept applies to an infinity of other objects than the one it was discovered in, it also recognizes that it doesn't want to be rediscovering this concept every time it meets the right type of object; but on the other hand, it doesn't want to clutter itself up with being conscious of all of its concepts all the time. Further, this would not really be possible, since the sensations are a "dimension" of the understanding; but they can't (in this life, at least) be divorced from their energy-"dimension"; and, of course, there is only a finite amount of energy in the brain at any one time.

So what is needed is (a) a "switch" that will turn a particular concept on and off, and (b) something that will economize on the brain's energy, so that you wouldn't have to recall all of the relevant images you had experienced in order to reawaken a concept. This would probably be a requisite for any mental act that you wanted to store and recall quickly. The most efficient thing to do is to have something simple substitute for it so that it could be reawakened by calling up just this simple sensation rather than the whole complex set of sensations.

Now a "switch" that turns *consciousness* on and off has to be a *sensation* of some sort, because it is both conscious (and so accessible to understanding and spiritual consciousness) and a form of energy.

Pure energy won't do it, nor will a purely spiritual act. Hence, what is needed for purposes of getting a concept out of one's consciousness and yet having it readily available is the creation of some simple image (because if it is internally created, it is using imagination, not perception, to create it) which (a) is somehow spiritually linked to the concept (i.e. which is deliberately created so as to "stand for" it and reawaken it when it itself is conscious—or in other words, which somehow contains the concept within it as one of its "dimensions); and (b) is connected by some nerve-pathway to the area(s) of the brain that contain the sensations that have the aspect in question. Presumably, other sorts of mental acts would also benefit, as I said, from having simple symbols (like "Wow!") which stand for a given emotional state, and which simultaneously awaken understanding that this emotional state is being expressed, and have links to the area of the brain where this emotion is felt. And since these images are sensible, they can be reproduced as some kind of external object, which will then be accessible to others as the expression of the mental act in question.

Therefore, we can say this:

Conclusion 6: The human spirit will create a *language* to store and retrieve and express to others its mental acts.

A word is a sensation that represents a mental act.

A language is an ordered system of words.

The first thing to note is that what the word *is* is arbitrary. It need not be a sound or set of sounds. The words you are reading are not sounds, and there is no particular reason why they have to represent sounds. I have heard that written Chinese is the same for all dialects,

because it is a separate language; and reading is really *translating* this visual language into the (other) spoken language of the dialect that the person happens to speak. If this is true, then written Chinese is a purely visual language; its symbols stand for *concepts*, not sounds which then stand for concepts. Further, the deaf-mute language is clearly *only* a visual language for those who can't hear. A shrug of the shoulder is also a word, as is a wink and various other uses of "body language." Some of these things are spontaneous expressions, like smiles or tears, but they can also be used to mean something and be understood by others as well as simply reacted to.

But why are most languages sounds? This presumably has to do with the expression-to-others function of the language, to make it as efficient as possible. If you are communicating with your hands, you don't leave them free to be doing anything else while you are communicating; and at the same time, the person you are directing your expression to must be looking at you. If you are making sounds, you can be doing whatever else you please, and the other person can receive the communication in more cases than with sight, because sound can bend around objects, and even go through solid objects like walls. Sound has many advantages over other forms of communication (except perhaps writing, which has its own particular pluses, such as that I can communicate with you even though I am probably now dead as you read this).

Let me now give a slightly broader definition of meaning:

The meaning of a linguistic expression is the mental act it stands for.

The definition I gave earlier seemed to imply that only expressions of acts of understanding had meaning; and there are many philosophers, A. J. Ayer among them, I believe, who at least seem to

hold this—and the position is reasonable on the face of it.

But in point of fact, unless you know what the relation is between the linguistic expression and the mental act, then you don't know what is being expressed, and the expression does not convey anything to you. For instance, if you don't know colloquial English or its punctuation, then "Wow!" is meaningless, and you don't realize that the writer is excited. If you don't understand English tones of voice as expressing emotional attitude toward what is being said (e.g., if you are Chinese, where tones express concepts), then "That was a really beautiful meal!" said in an ironic tone will be taken to mean that the person is satisfied with the meal, when he meant to convey that it was terrible.

So such expressions, even if they are not and don't contain statements of fact, have the meaning that the speaker is in a certain mental state. He can, for instance, lie by speaking as if he is pleased when in fact he is displeased, whether or not the words taken as statements have anything to do with this.³²

So even though not every linguistic expression is a *statement* of fact, it is *understood as* a fact; and when it isn't a statement of fact itself, it is understood to mean the speaker's attitude or desire dealing with whatever the words talk about.

Also on the topic of the arbitrariness of language, the words in a

³²Ayer contends that you can't really lie when making moral judgments, because they express an attitude, but aren't *statements of the fact that* you have the attitude. Thus, "It is wrong to steal" is the equivalent of "*Stealing!*" spoken in a tone of horror or revulsion. But (a) we will see much later that moral statements do have a factual meaning, and (b) even something like "*Stealing!*" if it is spoken to someone is intended not just to *express* but to *convey* the attitude; in which case, to say it when in fact you don't have the attitude is a falsification of what it says. Otherwise, ironic statements, like, "Really terrific! You did a lot of work on this!" when remarking about a failing grade on a test would *mean* the exact opposite of what the speaker intends them to *be understood as* and which are in fact understood by the tone of his voice.

language that exists in a culture may be arbitrary with respect to the culture as a whole, but they are not arbitrary for the individual who uses that language. That is, when the word was first invented and began to be used, whoever the first users were determined what concept the sounds in question would stand for; and from then on it is the understanding of the culture as to the meaning of the word that is the meaning of the word; and if a given person understands it to mean something that the culture doesn't understand, then the person is wrong.

This is not to say that cultures can't change the meaning of the words they use; but the word as in current usage determines the meaning that is to be understood by this word at this time. Thus "awful" does not now mean "inspiring awe" (this is now "awesome"), but "extremely bad." The translators of Plato's Republic insist on using "justice" to translate dikaiosyne, when what Plato meant by the word is an almost exact equivalent of what we now mean by "honesty."

And, of course, the pejorative connotations the feminists have put to certain expressions and the "sexual orientation" they have tacked on to them were—it seems to me—obviously not intended by the culture at all. For instance, "chairman" as implying something masculine (so that you have to say "chairperson" to be "sexually neutral") is absurd, given the fact that "madam chairman" has been the proper form of address to women in that position for decades. To say that "lady" is pejorative, and allege as evidence the expression "ladies of the night" (prostitutes) is to take an ironic usage literally, and is as dumb as saying that "gentleman" is pejorative because "gentleman of the road" is an ironic way of saying "tramp."

The problem I have with feminists who want to revamp the language is not the attempt to inculcate a non-sexist attitude; it is a disrespect for the language itself, and is analogous to Humpty-Dumpty's definition of "glory" as "a good knock-down

argument." Further, it is an attempt to remake the language into something sexist in the opposite direction. I hear women nowadays speaking of "women" and "males." It is forbidden nowadays to use "man" in the inclusive sense, and so it is supposed to refer exclusively to masculine human beings; but lately you can't use it at all; and "women" are referred to with a term that conveys *gender*, not *sex*, while "men" are designated by a term that refers to nothing but what is between their legs. If I were a "black male" I would resent the assault on my personhood that this term (which is almost exclusively used now to refer to these people) conveys.

Because of the aggressive attempt to change the language into something that promotes a political agenda, we have lost several things in our beautiful tongue. We have, for one thing, lost the concept of "brotherhood," because there is no word to express it except "brotherhood," and that word is forbidden as "sexist." We have also lost flow and grace in speaking. It matters little if he/she or "chairperson" is anything but tripping on the tongue; if you don't use such expressions, you are automatically supposed to be putting women down.

In any case, how much this has succeeded in altering thought-patterns is doubtful. For instance, I once heard a colleague refer to her "chairpersonship." Now the abstract of "person" is "personhood," not "personship"; so it is obvious that while she *said* "chairperson," she was *thinking* "chair*man*." The wrenching of the language out of shape succeeded in achieving lip service, but it didn't change the mentality even of one who was in favor of what it was supposed to be doing.

³³Those ready to quibble might note that the abstract of "man" is also "manhood," not "manship." But that simply reinforces my point: Chairman is not the same word as chair-man.

^{5:} Language

And because and to the extent that the attack on the language is political rather than linguistic, it is failing. I notice that lately announcers on radio and TV are using "chairperson" and "spokesperson" to refer to women and "chairman" and "spokesman" to refer to men. He/she has, thank God, fallen into desuetude, except that you still find college professors in learned papers switching genders in the middle of paragraphs to give men and women equal time. The first sentence will say something like, "If anyone takes this line of reasoning, she is doomed to contradict herself"; and two or three sentences later that same "anyone" is a "he." That isn't language—at least it's not the English language; it's insanity.

Some changes apparently are sticking. Terms like "man" and "brother" are taken by the culture in the male sense, and "person" is, in its less awkward usages, replacing the neutral sense of "man." This is robbing "person" of its meaning beyond the human race, as referring, for example, to God or to an angel. Since I suspect that you are reading this years after I am writing it (maybe even—I hope—centuries), I wonder what your reaction is, since whatever changes there are have got into the traditional language.

I guess the point I am trying to make is that tampering with the language is very tricky; you might wind up achieving the goal you intended and have all kinds of side-effects that you wish hadn't occurred.

The second thing to note is that, since language is a way of economizing on what reawakens a concept, then this economizing tendency also carries over into the language itself. It tries to have as few words as is consistent with conveying clearly the meaning of the speaker; and the result is multiple meanings of given sounds, where the context distinguishes one from the other, and different ways of combining words into statements that express new relationships. If every word were a statement or an expression of a complete mental attitude, we would have very little room in our brains to store

anything but words; as it is, most people begin to feel linguistic overload when the vocabulary they are confronted with is upwards of twenty thousand words; and so even people who have large vocabularies tend to use only a tiny fraction of the terms they know, because they want first and foremost to be understood; and so there is a great deal of resorting to metaphor and analogy. One of the reasons slang is so "colorful" is that it stems from the lowest and most uneducated class of society; and the smart people there very often don't know what the word is for something, and so make up a catchy phrase for it using familiar terms unfamiliarly.

In any case, economy of words in a language tends toward an intricate grammar, which allows the words to be used in various recognizable senses. Thus, the meaning of a "car radio" is different from that of a "radio car" simply by the position of the words. In English, we convey differences in many cases just by position, while other languages convey them by inflection or modification of the word itself, and position conveys emphasis.

Is there a built-in grammar that all languages share, as some contemporary linguists seem to think? Yes and no. If understanding is, as I think it is, knowing relationships, then language will be constrained by the minimum necessary to express relationships among (or within) objects. And what this entails is that there has to be some way (a) to point to objects, (b) express the relationship with others, and (c) express the aspect, or "hook" of that relationship onto the object. There is also the fact that language has to express the activity of reality somehow, and this generally, I would think, would be connected with time relations—though every language would also have to have an "aorist" usage that does not express any time (like our present tense, when used abstractly and not meaning "now"). But how you do all this is subject to enormous variation; and let us leave the linguists to figure it out and see if in fact there is a an actual construction or mode of construction that is common to

absolutely all languages. I am inclined to think that there is no "natural" grammar, however, or way that we "by nature" express in sounds the relationships and so on I enumerated above—in the sense that one type of grammar is somehow "preferred" or "primitive": a kind of *Ursprache*.

For our purposes, however, I should point out that languages also have to express four distinguishable types of complete linguistic expression (sentence):

A *statement* expresses an act of understanding (a judgment); and consequently what the speaker thinks is a fact.

A question expresses a desire to be informed, or puzzlement. An exclamation expresses an emotional attitude toward something.

A command expresses a desire that someone perform an act.

All of these, as I said, have to be able to be understood, and so they mean something; but the only kind of sentence that actually *expresses* understanding is the statement; and since a judgment is a judgment of what the fact is, then the statement will also refer (supposing the speaker not to be lying or mistaken) to what the fact is.

Because statements express *facts*, then statements are involved in a complicated truth-relationship. In Chapters 6 and 7 of Section 5 of the First Part, I spoke of the relationship between the judgment and the fact, and pointed out that the judgment would be *true* if it thought that the fact (the relation "out there") was what it actually was, or *mistaken* if it didn't.

But statements can match or not match the facts they are

supposed to represent in more complex ways, at least one of which is not mistaken at all. Hence, let us used new terms to refer to the truth-relation of *statements*.

A statement is *true* if it agrees with the fact (i.e. if it says that the fact is what in fact it is).

A statement is *false* if it does not agree with the fact it states (i.e. if the fact isn't what the statement says it is).

Notice that "true" and "false" do not have any reference in themselves to the *judgment* the speaker is making, but only to the fact that he is talking *about*. Hence, when speaking of a statement's truth or falsity, you completely bypass the one who made it and directly relate it to the fact.

Now then, there are four possible ways a statement can be false: (1) If the speaker has a mistaken judgment and expresses the judgment correctly; (2) if the speaker has a correct judgment and mistakes how to express it (misstates it unintentionally); (3) if the speaker *deliberately* misstates a true judgment (this is, of course, a *lie*); and (4) if the speaker has a mistaken judgment and misstates it in such a way that the two errors do not cancel each other out.

Thus, if a person says, "John is in the room," thinking that John is in the room when in fact he isn't, then his statement is false because his judgment is false. If a person says, "This book is infinitesimal in length," because he judges it to be very long, the statement is false, because he didn't realize that "infinitesimal" means "immeasurably small" rather than "immense." If a person says, "I paid you the money I owed you," knowing that he didn't pay, and knowing what the statement means, the statement is false because he is lying. If a person says, "This book is "inscrutable" because he

thinks it is very boring and he thinks that "inscrutable" means "very boring," his statement is (I hope) false because his two mistakes don't cancel each other.

Statements can be true for various reasons also: (1) because the speaker correctly expresses a true judgment (the usual reason); (2) because the speaker mistakenly misstates a mistaken judgment; or (3) because the speaker deliberately misstates a mistaken judgment. The last two cases result in a true statement when the two mistakes (or the misstatement and the mistake) cancel each other out.

An example of the second case would be "The Gettysburg Address was a very concise speech" if the person thinks that it was very prolix and thinks that "concise" means "long-winded." An example of the third would be, "John is not in the room," if the speaker thinks that John is in the room and is lying, but doesn't realize that John has in fact left the room. In this case, note that the statement is simultaneously true (because it states what the fact is) and a lie (because it deliberately states the opposite of what the speaker *thinks* the truth is).

A couple of sections from now, we will return to statements, discussing what is called "formal logic," which is actually not the way we think, but the way we express our judgments in language.

Now then, the third thing to note about language is that, since words are sensible symbols for concepts and other mental acts, then it is true in a sense that we "think in a language." That is, our concepts very rarely are completely divorced from linguistic symbols and only related to the images we take them from (we can, of course, create a language using pictures as words, but this is not the same as just using the original sensations as the termini of the relationship). Until we find or create a word that expresses our understanding, we are in an unsatisfied, incomplete state, because there is no way we can make it conscious again when we need it.

But there are times when the concept is known, and the words

aren't. People who have had strokes sometimes seem to experience this frustration of knowing what they want to say and finding no words (now) to say it. I myself had a peculiar experience in this regard once. I was teaching philosophy in Spanish in Argentina, and wanted to show the difference between my view and the traditional Scholastic view; and so I tried to give the traditional definition of "cause" in Latin, as I had learned it. But I was speaking in Spanish, and there was apparently no link in my brain from Spanish words to their Latin equivalents; so I could not think of the definition in Latin. I then tried to think of it in Spanish, and then in English; but the circuitry in my brain had been by this time so jammed, that I could not get at it in any of the languages, even though I knew perfectly clearly what I wanted to say. (As I recall, I said a few other things, which cleared up my brain-pathways, and was then able to say the definition in Spanish).

This, to me, establishes two things: (1) that the judgment is different from the language it is expressed in, and (2) that it is intimately connected with *some* sensible expression. This would not be surprising if the human spirit also has an immaterial "dimension" to itself.

Another indication of the difference between judgment and language is that when we say a word that we have already assigned a concept to, we recognize the concept as *already* known, and not as new.

This is very interesting, because it means that the concept does not get lost when it becomes unconscious; it just somehow lapses into latency. Even when we "change our idea" of something, we have not really *replaced* the old concept with a new one, we have simply *acquired* the new one and used the old *word* to refer to it; and the old concept is then reawakened by some more complicated expression. For instance, if you think that all trees have leaves that fall off in the autumn, and then someone shows you an evergreen, you

"change your idea of tree." But the concept you had hasn't *changed*; it is just that now you have to get at it by something like "deciduous tree," and recognize that the *word* "tree" now refers both to deciduous trees and evergreens, and so what aspects all trees have in common does not include what happens to their leaves in the autumn.

I think, then, that we can safely draw the following conclusion:

Conclusion 7: Once we have understood a concept, it becomes a permanent "dimension" of our spirit, but it is accessed only if its word (or a related image) is conscious.

Thus, you may "lose" a concept for the rest of your life, because you have forgotten the word it attached itself to; but in another sense, it is not really lost, because if you should happen to remember the word, the concept will reappear. And, as we will see in the next section, since our spirit will not cease to exist when we die, *all* of the spiritual acts we have *ever* had in this life will reawaken all together, because there is now no brain to shut them off selectively.

In any case, if the conclusion above were not true, I do not see how a person could be aware that he *already knew* a concept that he had reawakened.

Finally, let us note that understanding seems to be required for using language in the sense I am talking about it. Let me give what I think is the evidence, and then we can make it a formal conclusion. Since the symbol in the language is arbitrary and does not of itself evoke the mental act it stands for (even, really, in onomatopoetic words, which don't actually sound like what they're supposed to sound like), then the only way you can use the language in anything other than a repetitive or mechanically manipulative way would be if you knew the relationship between the words and what they stood for.

But this means that you understand, which means that your mind is basically spiritual, not immaterial.

This would seem, on the face of it, pretty obvious. But it is quite difficult to devise unambiguous tests for animals to see whether they can understand sentences or whether they simply manipulate them by their ability to make very complicated associations, and because they have been trained to make connections according to the language's grammar.

In recent decades, there have been experiments with chimpanzees using arbitrary-shaped pieces of plastic as words that stand for various objects, adjectives, and verbs. The animals quickly get trained to put the symbols for "Keeper give banana chimp" in that order rather than "Chimp give banana keeper," because in the one case, they get the banana as a result, and in the other they get it taken away. They can then do things like "Chimp2 give banana chimp," expecting the other chimp to give up his banana; and they do various other rather amazing manipulations of their plastic chips using their vocabulary of dozens of words.

But there seems no instance of them ever trying to *create* a word to stand for something else they are interested in; and some rather recent looks at some of the studies seem to indicate that the experimenters were giving a rather too sanguine interpretation of what their chimps were doing, and explaining as understanding something that could be accounted for by ingenious connections among the chips and the objects; and connections are not enough, as we saw, to establish that understanding is present.

So far, then, we have not seen any instances that any other animal except man can understand; because any use of language by other animals is either the making of some sound or gesture that *produces an effect* in the other animal, or it is a manipulation of things associated with other things. Neither of these is a language in the sense we are talking about here.

Here, then, is the conclusion:

Conclusion 8: If an animal can use an abstract language creatively, then the animal must be able to understand.

Actually, something of what animals do must be what happens in our dreams, where we hear ourselves and others saying things that actually (when we wake up) are meaningful and appropriate. But do we *understand* in dreams? I think not; otherwise, (a) we would know we were dreaming, (b) we would be aware of the illogic (e.g. as in my dream last night, I started driving up a hill, which I was then climbing on foot, and when I got to the top I found I was on a platform and had been climbing a ladder, not a hill); and (c) we are not really aware of ourselves as *subject*, but our experience is more or less the same as watching a movie of ourselves or reading a first-person novel. It is not that illogical things don't happen to us when we are awake; but we don't accept them as a matter of course the way we do when we are dreaming;

Clearly, we are *conscious* in dreams, at the low level of consciousness of imagination. But we do not seem to be *intellectually* conscious, for the reasons above.

But then how explain our use of language in a dream? With the same explanation as that of the use by animals of language. Our vocabulary is, of course, much more complex, and so are the rules of grammar stored in our brains; and as situations unfold in our imagination (following, as I said in the last section, the path of least resistance) phrases and sentences that have correct grammar and are appropriate also occur—but it has many many times happened with me, at least, that the sentences that I was perfectly satisfied with in my dream were remembered upon awakening and turned out to be completely meaningless and absurd.

So while I have in the past believed that perhaps we do think in our dreams, but that our awareness of our dreaming state is (ordinarily) suppressed (sometimes we do, of course, seem to be dreaming in the dream), I am inclined to think now that we don't understand in our dreams but only use language on the sense level. I can't see how a person can understand without knowing all about his conscious act, because it is all self-transparent if a spiritual act is involved.³⁴

Further discussion of language we can postpone until the next part, when we treat formal logic.

³⁴But, as I said in an earlier footnote, in my revision of this I have my doubts. It is perhaps not so cut-and-dried as this; it would be strange if intellectual consciousness were *completely* inactive when a person is conscious at all.

Chapter 6

Choice

e come now to what the Scholastics call the second of the "spiritual faculties" of the human soul, and which they name the "will." As I said, I don't think of this as a separate faculty (a kind of "spiritual appetite"); and I think, particularly in the case of choosing, assigning it to an appetitive faculty can lead to serious problems with human freedom.

It is here that what I said in Chapter 10 of Section 5 of the first part on goodness and badness fits into the ontological structure of the human being; and so let me approach the subject of choosing by saying first what I think is wrong with the Scholastic view, and then get into certain of the other views that either explicitly deny freedom of choice or deny it by implication.

To clear out the underbrush, there are various senses of "free" that we have to distinguish.

A person or animal is *free* if its acts are spontaneous, and not constrained or determined from outside.

An act is *determined* if it is not possible (for whatever reason) for it to be anything but some given act.

An act is *influenced* if something made it probable that the act would be performed.

So in this sense of "freedom," an animal that is not tied up is free; and it is free within the limits of its tether even if it is tied up. If I take your hand and make it move, then your hand is moving, but not moving freely.

This sense of freedom is not what we are interested in. All living beings are free to some extent with this freedom, because the initiation of their acts comes to some extent from inside and is not a *mere* reaction to the environment's energy. But plants and animals are determined to act by their genetic structure as it responds to the situation they are in; and hence, even though the dog might not be tied up, the strongest impulse in its instinct will determine the action.

As to the meaning of "determine," it is what we ordinarily think of as "force," except that "being forced" has negative connotations which are not necessary to being determined. For instance, your liking for chocolate would determine you to buy a Hershey bar if your liking was so strong that you couldn't (in practice) not buy the bar at that time.

"Influence," on the other hand, does not necessarily determine; but it does incline an animal or a person in a given direction. Usually, we (and animals too) are not subject to one single influence at any given time, but a whole set of them, which incline us in many different directions. Any determining that would be going on would be that the *weight* of the influences is toward a given action, such that this sum of influences overcomes influences in any other direction and makes any other act impossible.

The question before us is really that. Are human beings so constructed that, taking all the influences on a person at any given time (whether or not we know them all and weigh them correctly), we are determined to choose and do what the weight of the influences inclines us toward?

But, having discussed influences somewhat, let me now mention

another sense of "free":

A person is *free* if he is not constrained by a threat.

A threat is a promise of harm if some act is (or is not) performed.

This sort of "freedom" is called "liberty." Its point is that a threat is a *moral* constraint (i.e. one recognized mentally, but not a physical something) that tends to make it very unlikely that the person will do the act that is threatened. (Of course, if the threat is against *not* doing some act, then then act will very likely be performed.)

Threats are regarded as a different *sort* of thing from promises of reward. A person feels "freer" in giving up a reward than he does in doing something he wants to do and taking a threatened punishment along with it. And I think the reason lies in the fact that the threat means that you will be *worse off* from the way you are *now*, while missing the reward simply leaves you where you are.³⁵

In any case, threats or punishment (some kind of harm) are what give laws their "force." And the freedom called "liberty" is freedom (to the extent possible with public order) from this kind of threat.

But here, the threat is an *influence*, which is not necessarily determining, because there can be other influences in other directions that can offset the threat—even if the weight of the influences determines what a person will choose and do.

So the sense of freedom we are interested in is this:

³⁵That is, when the promise of reward is not fulfilled, you are less well off than you would have been if it had been kept; but you didn't lose in the sense that now you are what you are, and are no worse than you are now. The future state that you "lost" was imaginary, not real.

^{6:} Choice

Freedom of choice means that the weight of the influences does not determine the choice.

That is, those who hold freedom of choice do not hold that we are not *influenced*, but that it is *always possible* to choose *against* the weight of the influences. Radical free-choice theories would hold that it is always possible to *act* against the weight of the influences; while more moderate free-choice positions (among which I include mine) hold that the *choice* is never determined, but it might not always be able to control the *act* the person performs (meaning that the overt act or the behavior is determined in these cases by the weight of the influences, even though the choice isn't—and the choice may in fact be made in the opposite direction).

Obviously, it is going to be a tall order to prove this. All I am saying is that this is what the issue is.

Now then, why don't I like the Scholastic position? Because I think that, for all its assertions of freedom of choice, it is basically a deterministic position. I think that *any* position that holds that (a) the "will" (or the choice, if you prefer) is "by its nature attracted to 'the good,'" and (b) "the good" is objective, is a deterministic position.

And this is the Scholastic position. The will, as the intellectual appetite, is attracted to "the good" as such: i.e. "the good" as understood by the intellect. Since this is what it is oriented toward, then it is not possible for it to choose what is bad *rather than* what is good, if taken in that abstract sense. The will, for the Scholastic, can only choose *something which* is bad, but it can't choose it *as* bad, but only some good in it. Thus, if you choose to steal a thousand dollars, you aren't choosing it *because* it is bad to steal a thousand dollars, but so that you can have a thousand dollars that you don't now have (which is good), or that you can feel a sense of power

(which is good), or that you can get even with someone who cheated you (and correcting an injustice is good), and so on. The problem is, according to the Scholastics, that these "goods" are *connected* with something which *as a whole* is worse than its alternative. You choose it because either you don't know this fact, or because you deliberately choose not to think of it.

But in the second case, if the will is *automatically* attracted to the good, then you are in an impossibility. This "automatic attraction to the good" *has* to mean an automatic attraction to the *greater* good when faced with alternatives, since nothing is absolutely and totally evil (as we saw, evil as such doesn't exist). There can't meaningfully be an "automatic attraction" toward something that doesn't have any alternative; all the "automatic attraction toward the good" would mean if it didn't involve the greater good of two alternatives is that the will is "automatically attracted toward" anything at all, and wouldn't automatically distinguish between the most depraved and horrible act (which has something of goodness in it) and the most noble and glorious one. In fact, what "attraction" would mean is questionable in this case, because all it would mean is that the will triggers action, not any particular action (since for it all would be equal).

But if the "attraction" is really toward the "greater good," then how could you put facts indicating lesser goodness out of your mind? You would *know* that these facts you are *deliberately* putting out of your mind tip the scales in the direction of the act's being less good (i.e. less attractive to the will) than the alternative; but then how can you *deliberately* ignore them? The *choice* to ignore these facts would have to be made by the *will*, which is, as we just said, automatically attracted to the greater good. It couldn't be done.

Hence, the only thing that would allow you to *choose* what is in fact less good than the alternative would be, as Plato held, ignorance. You might *do* what is less good for one of two reasons: (a) ignorance,

or (b) inability to make your body do what you choose; but you couldn't make a less good choice if you were aware that it might be less good (because the ignorance would be recognized as a less desirable state, and a deliberate refusal to find out the truth would be impossible). Hence, even to suspect that you might be doing what is worse would be enough to make the will stay the act until you found out the facts. This is confirmed by the fact that it certainly *is* enough to stay those who are trying to do what is best—which itself implies that the whole theory has something wrong with it, because it implies that we *can't* do anything but try to do what is best.

This is why I call the Scholastic position a determinist position *sub* rosa.

It is also true of *any* position where the result of reasoning about goodness and badness (even if this reasoning is held to be spiritual) determines the will. Here again, the Scholastic position fails. The deliberation process is supposed to weigh the pros and cons of a given action (the "goods" as opposed to the "bads"), and finally reach "the last practical judgment" ("This is better for me to do now than that") which determines which act will be performed. For the will now to say, "But I will do that one nonetheless" would be for the will to act *against* reason, which for the Scholastic is not possible. It is possible to act *praeter rationem* (apart from reason) but not *contra rationem* (directly counter to reason). If the will, after all the deliberation, could then throw its results aside and do the opposite, then the whole deliberative process would be in fact useless, because it would make no difference to the will; and obviously in this case, the will would not be "attracted to the good" but merely capricious.

There are qualifications that the Scholastics make, but they don't really get around the problem, I think. Any attraction to a partial good would involve deliberately ignoring the repulsion this partial good has in the context; but you can't *deliberately* ignore it if good attracts you and evil doesn't, because you know that it is better not

to ignore, and you can't ignore that.

The Scholastic position does have this going for it: it recognizes as a fact that our choice is free; it is its explanation of how we can choose freely that I have difficulty with.

And as I see it, the real problem in theories like this lies in the knowledge of what it means to say that something is "good." If what I said in Section 5 of the first part is true, then all "X is good" means is that the object matches some arbitrarily ideal I have freely set up, and, the problem is solved.³⁶ The "will" is not *attracted* to something objective called "the good" at all; the human spirit *creates* the good of something by choosing that something as its goal (or at least its ideal).

Before getting into a defense of why I think the position I take is not canonizing caprice (in a sense it is, of course), I think we should look at the evidence which would indicate *whether* our choices are free or not. After all, it's certainly thinkable that they *could* be determined; and God knows there have been plenty of philosophers throughout the ages who have explicitly said they are.

The primary evidence for the choice's freedom is, as I see it, the same as the Scholastics' primary evidence: that the choice is a conscious act, and so immediately aware of itself, as containing its whole self within itself; and the choice carries with it a conviction that it *could* have been different (i.e., that it is not determined). Even when a person says, "I couldn't help myself," he will be found, if pressed, to mean that he couldn't control his *act*, or even that he acted against his choice ("I did it in spite of myself"). The same is true of "You leave me no choice." The person realizes that he *could*

³⁶I would also like to remind you that if you don't take this position, then the "problem of evil" is not soluble, as I said in Section 5 of the first part.

choose to take either alternative, but that one of them has been made completely unreasonable.³⁷

Even those like B. F. Skinner, who hold that the choice as well as the act is determined, admit that we have this conviction that our choices are free; but these people think that that we are deceived. As Skinner's *alter ego* in *Walden Two* says, "The illusion of freedom should fool no one." Well, it fools me if it is an illusion. I don't see how a conscious act can be deceived about one of its own dimensions. This would be tantamount to saying that what seems red to you "really" *seems* green (i.e. not that a green *object* looks red, but that the way you see it is not really the way you see it). There is nothing between the act and its consciousness of itself that could get in the way of its knowing itself. We discussed this, if you recall, back in Section 1 of the First Part, in connection with our absolute certainty that there is something.

In that sense, the burden of proof (and it is a very heavy one) rests on those who think that our choices are determined. Still, to say that our choices are not determined is so foreign to the way things at least seem to behave in our world, that a case really has to be made for freedom, too. To a rationalist, freedom of choice is absurd, and amounts to randomness.

And as a matter of fact, this is what is behind Skinner's determinism. He thinks that if a choice is not determined by the influences acting on it, then it is uncaused, and therefore unpredictable. This would make a science of human behavior impossible, because there would be no way to predict it. But there is a science of human behavior, which means that human behavior is predictable,

³⁷That is what the comedian Jack Benny used in one of his routines. He was supposed to be a miser, and when a thief confronts him with "Your money or your life," he says, "Wait a minute, I'm thinking."

and therefore, it is determined.

There are all kinds of flaws in the logic here, of course. First of all, human behavior is only predictable *statistically*, and statistics (as we will see considerably later) are the inverse of probability, which deals with what is random. That a coin comes up, in the long run, heads half the time when you flip it doesn't mean that the flips were not random; in fact, it is *when* they are not random that heads does not tend to appear half the time. Hence, that human behavior is statistically predictable (but that individual acts aren't) is rather evidence that human behavior is random than that it is determined—although actually, it doesn't prove anything one way or the other.

Secondly, "to cause" does not mean "to determine," but "to make not contradictory what would otherwise be a contradiction." Hence, it does not follow that if an act is not determined by the events that influence it, it is uncaused; the influences are parts of the cause of it (i.e. they help explain why it is what it is), but they are not a *determining* cause of it.

No, Skinner's position is really that "it just stands to reason" that since influences influence, then the strongest influence prevails; and his explanation of why human behavior is only statistically predictable is that in a given case, the influences are so complex that we can't know all of them, and so we can't actually tell where the weight of the influence lies until after the fact. He also has the scientist's notion that you can't take anything as scientifically true unless it is repeatable under the same conditions. And to "prove" that you are free by going back and making the opposite choice in the same circumstances is impossible, because the mere fact that you made the one choice before and now you want to prove that you can make the other one is an influence that wasn't there before, and makes the second time round not a repetition of the first one.

True, *if* the conviction of freedom is an illusion, then there is no way to prove that it isn't after the fact (or to prove that it is, either).

But this doesn't mean that "you pays your money and you takes your choice"; there is evidence that is relevant to the issue.

First of all, we can take it as a fact (since it is admitted even by determinists) that we have the conviction that our choices are free. Any theory of human choice has to make sense out of why we *think* our choices are free. The problem is that making sense out of this is quite difficult, since on the one hand if you say that it is true, your description of what is going on seems, as in Scholasticism, to imply determinism; and on the other, if you deny it because it affronts reason, you have to deny something that is immediately evident.

Let me first take up a view that is not in vogue today, but which you still sometimes see in some articles: what has been called "Theological determinism," which sometimes goes under the name of "predestination" in the Calvinistic sense.

The idea here is that if God has absolute knowledge of what I am going to choose and absolute control over it, then in point of fact I can't choose anything except just what God wants me to choose; and since he has this knowledge from all eternity, it follows that all my choices are "predestined," and I can't do anything about them. I don't have any *real* alternative. There is a choice I will make tomorrow about getting up out of bed; and however much I may not know what it will be, and however much at the time I may *seem* to have the alternative of choosing to stay in bed, I will in fact make the choice God has eternally caused me to make, and I will not be able to make any other.

This mistakes three things: God's eternity, his causal activity, and his "stake" in what happens with his creatures—all of which we have

discussed earlier at length.³⁸ First, as I said in Chapter 6 of Section 3 of the second part, the eternity of God's causing me to choose something does not mean that he either knows or causes the choice *before* it happens; he knows and causes it eternally, and this does not imply before, during, or after. God's eternal *knowledge* of what I will choose tomorrow does not determine the act any more than my knowledge now of what I chose this morning determines my choice this morning.

That is, "determined" as opposed to "free" doesn't have to do with the "necessity" involved in the Principle of Identity³⁹ that what is what it is must be what it is while it is what it is. All that this says is that a fact is a fact. But a fact is *determined* if the agent is *incapable* of doing anything else; and so this "necessity" deals with *power* over what the fact is to be, and not that, when it is what it is, it is what it is. God's knowledge, then, of the choice I make tomorrow to get up is simple factual knowledge, and is the same as his (and my, for purposes of this discussion) knowledge of the choice I made to get up today and the choice I made yesterday, and so on.

But, of course, since God is simple, his knowledge of my choice is also his act of causing the finite act which is my choice, and isn't it here where the problem comes in? Only if you interpret "to cause" as "to determine." I discussed this under Conclusion 30 of Chapter 9 of Section 4 of the First Part, where I was speaking of how God cannot "permit" a sin, but must actively cause it. No finite act is

³⁸In Chapter 6 of Section 3 of the second part, and Sections 4 and 5 of the first part.

³⁹See Chapter 8 of Section 1 of the first part.

possible without God as its cause, because by itself it would be a contradiction (it is less than itself), and only God can resolve this contradiction. But God, in resolving the contradiction, accounts for the act's being what it is, and if the act is self-determining, this obviously does not take away the act's freedom (or what was supposed to make it not self-contradictory would make it self-contradictory). So God's removing the contradiction in a free act's finiteness does not by that fact remove its freedom. Of course, the act can't happen if God withholds his causality from it, so he has control over whether it will (freely) be done or not (and presumably if he wants some definite act—such as Mary's free consent to his offer to sire a son by her—he could simply withhold causality from anything else but the free choice to give the consent). So he has control, without determining the act; since the causes what you might call the "generic finiteness" of the act; but the agent is the one who chooses which (finite) act the act the act is to be, and the agent has the power to choose the opposite; it is just that the agent in fact makes the choice in question. In Mary's case, for instance, God made his offer in circumstances in which he knew she would freely accept, and when he choice was being made, he caused the choice to be the free choice which it was.⁴⁰

⁴⁰And thus do I solve the problem that has had the Jesuits and Dominicans at loggerheads for centuries. On the Dominican side, God must actively *do* something or Mary's finite act of choosing could not be made; but this "physical premotion" (which is not "pre-" but eternal) is not a *determining* causality. On the Jesuit side, since the act of causing her free choice leaves it completely free, he assures that the consent is given by arranging the circumstances in such a way that he knows (eternally) that in these circumstances her free choice is (in fact) what he wants it to be. None of this, of course, happens for God beforehand, during, or subsequent to her actual choice. I might point out in addition that, since Mary was conceived without the consequences of "original sin" (which I will discuss later), her emotions had no tendency to be out of control, and so she was *completely* free. It was for that reason mainly that she was so

The third misunderstanding deals with God's "purpose" for his creatures. As I said in Chapter 4 of Section 3 of the second part, God has no purpose in creating other than that what he creates be what it is; and not even this is a purpose in the strict sense; but in any case, it implies nothing with respect to what any creature does. And in Chapter 12 of Section 5 of the First Part, in discussing the problem of evil, I pointed out that God, as absolutely unable to be affected by anything in the universe, has no "stake" at all in what happens, in the sense that he "wants" something that does not in fact happen, or "would be disappointed" if it didn't, because from God's point of view, nothing is good or bad.

Hence, predestination, properly understood, doesn't have anything to do one way or another with a choice's being free. The "predestination" from God doesn't happen beforehand, God's knowledge of the act chosen includes the knowledge that it was chosen freely (if it was), which means that the finite agent had *real* power to choose otherwise, but only in fact chose the way he chose, and God's causal "help" making that act possible only removes the contradiction in its being finite, but does not by that fact determine it or remove the finite agent's power over what the act is to be. Therefore, we can dismiss any kind of Calvinistic fatalism (which if it wasn't in Calvin, was certainly in some of his followers) as a misunderstanding of what God's knowledge and causality is.

We come finally to the issue as it stands today. Present-day psychological determinists like B. F. Skinner say that the sum of conscious and unconscious influences determines in every case what you choose and what you do.

How then do they account for the conviction that choices are

conceived, I believe; so that she could be a true "second Eve" and make her choice without any undue influence on it.

^{6:} Choice

free? By saying that not all the influences on any given choice or act are *known*, either by anyone from outside or by the agent himself.

Here, I want to strengthen the determinist position beyond what Skinner says, because he isn't a very good philosopher, really, and his position as he states it is open to refutations that could have been avoided.

Sophisticated determinism, then, explains the conviction of a choice's being free on these grounds: When the weight of the influences is not known, the act seems to be free. When it is known that the weight of the influences are determining the act, it is felt not to be free—and we say, "I couldn't help it" afterwards. The conviction of freedom is strongest when the weight of the known influences is in one direction, and the actual choice and/or act go in the opposite direction. How could we not think we were free in this case? But the secret here, according to the determinist position, is that unknown influences are actually tipping the scales so that the total influence is more in the direction of the act you do choose; and so you really couldn't help doing what seemed to you so free—because you did what you were really most attracted towards, even though it was against what you consciously seemed to be attracted towards.

This theory explains, on the supposition that we are always determined by the weight of the actual influences, (a) why we think we are free, (b) why we sometimes think we "couldn't help it" and feel not free, and (c) why we can "fight temptation" and sometimes win over what seemed to be the strongest urge.

And if this theory accounts for all the facts, then it is to be preferred over one that supposes freedom, since by Occam's razor, freedom is less likely on the face of it, and so this explanation leaves the act as not something mystical or esoteric. If the only thing against it is the supposition that the conviction can't be mistaken because it is a knowledge of the act by the act itself, then you must remember that this "fact" is actually a *conclusion* from the whole

theory of consciousness we developed earlier, and not of itself evidence as such. In fact, if the theory above turns out to explain all facts that everyone admits are facts except this one, then it calls into serious question everything about the theory of consciousness which would imply that it is impossible for the conviction of freedom to be an illusion.

So the issue is serious; and we can't use the conviction itself as evidence against it, because it gives at least a plausible reason for why the conviction could be an illusion. And the theory, in fact, is further strengthened by the fact that we can actually provide an *experiment* in which a person thinks he has freely chosen to do something, but we *know* that he was forced to do it by something he was unaware of.

The experiment involves hypnosis and posthypnotic suggestion, and is actually fairly commonly done in demonstrations of hypnotism. The experimenter hypnotizes the subject and tells him, "Exactly five minutes after I wake you up, you will remove this light bulb from its socket. But you will not remember that I told you to do this." He wakes up the subject, and four minutes later, the subject says something like, "That light is blinding me. Do you mind if it turn it off?" If the experimenter protests, the subject is apt to say, "Oh, come on. It's no big deal, and it really bothers me," and exactly five minutes after waking, he removes the bulb.

When questioned, he is very apt to think that he freely chose to remove the bulb, and could have left it there. He recognizes the influence the brightness had on his choice, but he wouldn't necessarily (and often in practice doesn't) think that influence was overwhelming, making it impossible for him to leave the light burning. But of course, the real reason he took out the bulb was the posthypnotic suggestion.

But was it? Perhaps the posthypnotic suggestion only produced the *sensation* of painful brightness (using instinct to create the illusion). After all, hypnosis has to be a taking control of instinct by

the experimenter. If this is all that happened, then it is quite possible that the person freely chose to take out the bulb based on this *misinformation*, and the experiment is no argument for determinism.

To refute this objection, experimenters point to instances when someone has a posthypnotic suggestion to do something fairly neutral like removing a bulb, and then others try physically to prevent him. What normally happens is that the subject will struggle and fight to do what he was told in the suggestion, even though the act he is trying to do is not at all worth the struggle to do it.

This seems to indicate that this apparently free act was determined by the posthypnotic suggestion, and that the person thought he was free because he was totally unaware at the time of this overwhelming influence.

But it's not quite that simple. People who are prevented and then panic and struggle realize at that point that something funny is going on, and begin to think that they were not as free as they thought at first they were. They still don't know what is making it so desperately necessary to do the act, but they have lost the sense that they are free. Further, people who are given posthypnotic suggestions to do bizarre acts (even if innocent morally) or acts wildly foreign to their character—like standing on a chair, waving their arms, and shouting the Gettysburg address at the top of their lungs—don't tend to report afterwards that they felt free, but that they had an irresistible impulse to do the act.

And this is very instructive, and indicates that we should look more closely at the situation. You can't have it both ways: you can't say that the *reason* people feel free when they do is that they are *ignorant* of what is forcing them to do something, and then say that there are people in this situation who feel *not* free. That is, the theory advanced above predicts that any time a person is determined by the weight of influence that is unknown, he will have the conviction that he is free. Since this theory says that we are always determined, it

claims that the *cause* of the "illusion" of freedom is nothing but the unknownness of some of the determining factors. But then, when this cause is present, the effect will occur. Hence, on this theory, it cannot be the case that a person is determined by something unknown and feels not free. But this seems to happen with some of the people given posthypnotic suggestions.

Hence, that experiment actually argues *against* the theory that the unknownness of the determinant produces the conviction of freedom, because it would have to happen in every case if it were true.

But then how can a person who holds freedom of choice account for the experiment, in which the person actually was determined to take out the light bulb and thought he was free to do it or not to do it? It doesn't make sense to say that the posthypnotic suggestion only provided information in this case, and is determining only when an attempt is made to prevent the act. That's playing fast and loose with common sense just to save the theory. If the suggestion determines the act in the one case, then it is determining it in the other.

So on this showing, this experiment now disproves both theories.

But actually, things aren't as bleak as all that. If we distinguish the freedom of the *choice* from the freedom of the *act*, then it is quite possible that the person thinks he is free if no resistance is offered because (a) the brightness of the light gives him a reason for *choosing* to do the act in question, and he has no *conscious* reason for not choosing to do it; and so he freely chooses to do it for this reason; and (b) the fact that he *does* what he chose to do makes him *think* that his act is determined by his choice, and so is free. When resistance is offered and he struggles against it, it now becomes reasonable not to do the act, but now he finds that even if he chooses not to do the act, he can't prevent himself from doing it; and so he feels that he is not free in his actions, though he still thinks his choice is free.

This is fairly complex, but it solves the problem. The idea behind

it is that the choice uses information (facts known) as the reasons for which it freely chooses one act over another. Since the choice is conscious, it knows itself as well as the facts which it picks out as the reasons for the choice. In ordinary circumstances, this choice then directs energy in the brain into the appropriate motor nerves; and when the act chosen is the act performed, then the person feels free.

But sometimes, there is (as I said in the preceding section) so much energy in the instinct that the choice can't direct it to the behavior it wants; and so, even though the *choice* remains free, the person *feels not free* because he didn't do what he chose to do. He realizes that he is "out of control of himself," meaning that his (free) choice can't determine his act in this case (and so something else—known *or* unknown—is determining it.

That way looks rather promising, because it explains what we have seen so far. Let me now look a little more closely at the determinist theory and see what it entails, so as to be able to make some testable predictions about human behavior.

The theory obviously states that *both* our choices *and* our acts are determined by the weight of the (known + unknown) influences on us at the time. When enough of the influences are known that it is clear what act the sum of them is inclining the person to, the person feels *not* free; he feels free *only if* he does not know enough about the influences to realize which act they in fact are inclining him towards, especially if in his ignorance he thinks they incline him one way and he does the opposite.

Secondly, since the person *states* as reasons for his choice the same sorts of influences that also influence the actual act, then presumably the same influences influence both the choice and the act. That is, it would be odd indeed to find an influence that made you choose but had no effect at all on what you did, or something that made you act a given way and didn't incline you to choose to do that act. I don't, in fact, see how you could sustain a determinist theory with a set of

influences that affect only the choice and another set that affect only the act.

Hence, we can make the following predictions from this theory: (1) A person will never feel *unfree* if he is determined by something he is not aware of (i.e. if as far as he knows, nothing is forcing him in a given direction). (2) A person who feels free will only *begin* to feel unfree by discovering something previously unknown that is forcing him in a given direction. (3) A person will never choose to act one way and actually act in a different way.

Now let us test this against the large number of cases of people who feel unfree: those who go to psychologists and psychiatrists for help, because they feel out of control.

As a preliminary here, I think we can take it as true that these people honestly think they are not free. Psychiatrists and psychologists charge a hundred dollars an hour and up for their services, and the sessions are apt to be weekly or even more often for years on end. You don't put out that kind of money to get yourself back into control if you really believe you're in control in the first place.

But the interesting thing for our purposes is that a very large proportion of these people do not know what makes them do what they feel compelled to do. They are going to the psychologist in part to find out what is making them behave the way they behave. Most of them can't give any real reason why they do what they do; and it is only after many sessions in therapy that they begin to discover with the therapist's help why they are doing the acts.

But this is *directly counter* to Prediction (1) above. These people, if anyone, would feel free if the determinist theory is true, because they are compelled to do something and as far as they know there is nothing compelling them to do it. They must spend weeks or years discovering what is tipping the scales to make them behave in this way. And in fact, very often no one knows what compels people like this. Why do alcoholics drink? Is it something organic in the brain?

Is it a bad habit? Is it to overcome some unbearable memory? Is it all of these? There are all kinds of theories, but no hard evidence. It is also the case that most, possibly even all, of the people who come for help thinking that they are out of control come only after very extended periods of doing the compulsive act thinking that they were in control of it. One of the characteristics of this kind of person is that of "self-deception"; he will give all kinds of reasons for doing the act, as if to prove to himself that he is really free and not compelled at all. It is only when he "hits bottom" that he finally comes to realize that he needs help. This can almost be said to be a universal truth with respect to alcoholism; it takes some kind of crisis for a person finally to wake up to the fact that he is an alcoholic and can't just "take it or leave it alone."

Now what happens in this crisis which leads to discovery? Is it, as in Prediction 2 above, that the person discovers some new fact that he now realizes compels his choice-behavior? Almost never. As far as he knows, he is the same as he was before the crisis; he hasn't *learned* any truth about his unconscious; in fact, he seeks help now *precisely because he doesn't know* what he thought he knew about himself. All he really has discovered is that he thought he could control his acts, and now he realizes that (for some unknown reason) he can't. That is, he hasn't found *the reason* why he can't control himself; he has just been forced by some circumstance to admit *the fact that* he can't control himself.

But this again goes counter to the determinist theory. If you don't know what's doing this to you, how can you know that you can't help doing it? That is, you are the same today as you were yesterday; you know no more about your psyche. Yesterday you did this act and felt free doing it; today you do it and realize that *both* yesterday and today you aren't free doing it; but you don't know *why* you weren't free yesterday; you just know *that* the feeling that you did the act freely was an illusion.

But then what *is* this "crisis-circumstance" that creates such a change? Again, almost without exception, it is a situation in which the person finds a very good reason for *not* doing the act he thinks he can control, *and decides not to do it*, and then finds he can't. The alcoholic says, "All right, that's it; I'll have to stop this," in circumstances where, "Well, one more won't hurt" won't do (e.g. his employer has told him, "One more drink and you're fired"). 41

Sometimes the realization can come, as it did with my mother, in realizing that you now have an greater opportunity for the act than you had before. My father never let her have any money of her own, and she had a charge account at the grocer (who didn't sell liquor or wine) that my father would pay. She would scrounge pennies until she got together enough to go to the other store across the street and buy a bottle of wine, justifying herself with "It's only wine" (You should have seen—no you shouldn't—what "only wine" did to her!), and "I only do this every now and then; I just like to have some handy once in a while." One day, when she couldn't get any money and needed the wine, she called the grocer and asked if he would go across the street and buy her a bottle of wine and put it on her

⁴¹It is in forcing this recognition of helplessness upon a person that what is called "tough love" works. A compulsive person like an alcoholic can't get back into control unless he recognizes that he is out of control; and the only way he can have this recognition is actually to choose not to do what he then finds himself doing. The "one more won't hurt," or "I can begin tomorrow" rationalization can block this (because in fact one more won't make much difference, and it doesn't really matter if you stop today or tomorrow)—and hence this postponement is a choice which can be freely made without realizing that there is a compulsion underneath the behavior whose stopping is postponed. It is very, very difficult to make a person realize that his act is not subject to his choice, because the unconscious compulsion tends to block out information that would indicate it until a situation occurs where postponement is out of the question.

bill—and he did. She now realized that she could have it whenever she wanted, and now it was *up* to her to stop. That is, she realized now that the excuses she had before for thinking she was in control of her drinking wouldn't work; it was either stop altogether or wind up back in the hospital. That did it. She stopped.

In the case of most people, the realization that they *have* to stop comes together with the realization that they *can't*; they realize that they need help. And that is when they seek help.

The first thing to note here, then, is that these crisis circumstances don't involve knowledge about *what is making you do* the act; the feeling of helplessness comes usually just from having a very, very strong reason for *not* doing the act. The person then chooses to stop, and continues doing the act for some unknown reason.

But under the determinist theory, the person in these crisis circumstances would feel *free* in the face of this new reason *unless he knew that the scales were tipped the other way*. But he learns this only *after* the fact: by not stopping when he "has to" stop, and wanted to stop, and actually tried to stop.

But how, on the determinist theory, could he *choose* to stop? Obviously, the reason he now confronts ("One more drink and you're fired") is an influence inclining him to stop; but there are all the influences that incline him to drink, and (as his subsequent behavior shows) these are stronger than the sum total of what inclines him to stop. But if the weight of the influence is making him drink, then it will also, by Prediction 3, determine the choice, and so he will choose not to stop.

Well, but maybe he didn't choose to stop. Maybe the new reason was just enough to make him hesitate, but he actually chose to keep drinking. No, that won't wash; because he then (a) feels out of control, and (b) actually chooses to seek help and sometimes go to enormous expense to get it. If he is still choosing to keep with his compulsion, why is he choosing to root it out? Either one or the

other of the acts is compelled by the weight of the influence; but it can't be *forcing* an act and *forcing* its opposite at the same time.

Well, but can't you be inclined in opposite directions at once? Yes, but you can't be *overwhelmingly* inclined in opposite directions at once. We are not talking here about ambivalent feelings about something; we are talking about the supposed *cause* of behavior, which is alleged to be that "the sum total of influences toward X is greater than the sum total of influences away from X," and so X inevitably will be done. But here, the person (a) drinks and (b) at the same time tries not to drink.

Well . . . "at the same time." The influences might at this point be so closely balanced that the slightest thing will tip the scales either way; and so now he chooses not to drink and moves away from the bar, and two minutes later some slight remark of someone makes him choose to drink and move to the bar.

This is possible, I suppose, except that it makes this sort of behavior the same things as vacillation between equally attractive alternatives, where you "can't make up your mind." The experience in that case is not knowing what to do, and in general is accompanied by the feeling of freedom to do either. Here, the person seems to think he knows very well what to do, and the inclination in the opposite direction is regarded as a "temptation" against what he knows he should do, and his experience in doing what he is tempted to do is in being "overcome" by the temptation, not in choosing the more attractive alternative. There is *something* about him that is trying not to do what he eventually finds himself doing.

That is, the experience of "fighting a temptation" is totally different from that of weighing alternatives. In the case of weighing alternatives, the person is *willing* to take either, depending on which one comes out on top. In the case of fighting a temptation, the person is *unwilling* to do one, and is afraid that he will do it "in spite

of himself," and even when he "gives in," he still doesn't *want*, in some meaningful sense, to do it. "What I do isn't what I choose to do," says St. Paul in *Romans*, giving what he considers an experience common to everyone, "I do what I hate doing. And if I do what I don't want to do . . ."

The issue for determinism is how you can account for this conflict, and distinguish it from being attracted to a chocolate mousse or a raspberry torte, where neither is regarded as a "temptation" against the other, though in fact you will choose one rather than the other, and thus the desire for the other will remain unfulfilled. That is, it is not enough to say that the sense of "giving in" to the temptation is explained on the grounds that the temptation was stronger (the person admits that) and the other inclination lost out and remains unfulfilled, because that is exactly the situation in the case of the mousse, and there is no sense of "not wanting to do what I did."

And the situation of the compulsive is even stronger. Once he recognizes his compulsion, he not only doesn't want to do what he keeps doing, it is vitally important to him to stop doing it, and he takes steps to see to it that he stops. His experience is not just of vacillating between alternatives, but of a constant struggle within himself, so that no matter what he does, he feels bad for doing it. If he "wins" over the temptation, he ordinarily doesn't feel triumphant, because the temptation is still there, driving him ever onward; and if he "gives in," he feels terrible, for the reason St. Paul gave. And he really still does not know why it is that the inclination to do the act is so strong in him—which should, on the determinist theory, make him feel free.

Of course, the determinist could try to explain the struggle on the grounds that there are some influences which are stronger on the conscious choice to act and weaker on the act, and some that are stronger on the act and weaker on the choice. But that is grasping at

straws. What influences the act also influences the choice to act, or the theory is gibberish.

Then what can we say? (1) The determinist theory predicts that what we call a compulsive ought to feel free, and he clearly doesn't. (2) The determinist theory predicts that the person should change from feeling free to feeling compelled by finding out what is overwhelmingly inclining him to do an act; but in fact most compulsives discover their compulsion by finding a reason *not* to do what they are compelled to do. (3) The determinist theory predicts that a person who is compelled to do a certain act will also be compelled to *choose* to do that act; but the evidence indicates (though it is not absolutely conclusive) that compulsives *actually choose to do the opposite* of what they do "in spite of themselves."

Hence, the determinist theory sounds quite unattractive as an explanation of compulsive behavior. How does it stack up against the behavior and experience of those few of us who are sane? If we consider the act of *deliberation* about what course of action to take, we find some interesting things:

First, it is most people's experience that the more facts they find pro and con, the more free they feel about what to do. That is, we try to find as much evidence on both sides when we are deliberating what to do, because we have the feeling that we need to know the information in order to make a good choice; and the more we know, the more in control of the situation we feel. That is, if you were thinking of buying a car, and you suddenly realized that one of the reasons you liked the Buick was that you thought that the girl in the commercials was prettier than the one in the Oldsmobile ads, you would feel more in control and freer by finding out what was inclining you toward the Buick.

But the determinist theory would predict just the opposite, since the reason you feel free is that you *don't* know what is inclining you this way or that; hence, the *less* you know, the freer you would feel.

Notice also that when you discover that you were attracted to the Buick because the girl in the ads looked prettier, you would be inclined to say, "Well, I'm not going to let *that* sway my judgment!" and use it rather as a reason *against* the Buick than for it.

But this implies that when the inclination gets into consciousness, we think that we can control it insofar as it is to be a "reason" for or against the choice. We can even, apparently, make an attraction toward something a reason for choosing against what it attracts us towards.

But once again, the determinist theory predicts the opposite. On that theory, we have no control whatever over what inclines us, nor over how strong the inclination is, whether the inclination is conscious or not. Obviously. If we could control the strength of the inclination, then whatever *controlled* the strength would be what was doing the determining, not the inclination itself. Hence, for the determinist, whether an influence is conscious or not is irrelevant, except that when it is conscious, it would lead to the feeling of being compelled by it, not being free. The experience of deliberation is exactly the reverse of this.

Finally, when we have finished deliberating and made our choice, it sometimes happens that later we discover a fact that we had forgotten when we made the choice, and we say, "Darn it! If I'd only remembered that, I'd have done the other thing!" And sometimes, if the choice is revocable, we actually *reverse* the choice we made. For instance, you buy a cheaper computer because you wanted the more expensive one, but didn't feel that you wanted to go that deeply into debt. But later on in the day you buy the cheaper one, the mail comes with your tax refund, which brings the more expensive one into your reach. You knew that the refund was coming; but you think that if you had remembered, you would either have waited, or taken out the larger loan; and now that you have it, you try to take the cheaper computer back and exchange it for the other one.

Now, on the determinist theory, if that fact was forgotten at the time we made the choice, but is latent in the unconscious (i.e. it was not a fact we didn't know at all, but a fact we knew and just didn't remember), then this unconsciousness of the fact doesn't prevent it from being an influence on the choice; it is just as great an influence as if it were conscious. Hence, the determinist theory would predict that remembering the fact later (as long as the other influences didn't change) would have no effect on (a) what you think the choice would have been, and (b) no influence at all in making you change the choice. But people do in fact change their minds when they remember something; and this seems clearly to indicate that, as far as the choice is concerned, at least, it makes all the difference in the world whether the influences are conscious or not. And that, in fact, explains why we think that we had better deliberate carefully before making an important choice, and become conscious of all the relevant information. If the information's consciousness made no difference (as it wouldn't on the determinist theory), there would be no reason for this.

Another interesting experience about deliberation and choice is that we sometimes choose to postpone a choice, or even choose not to make one. That is, after deliberating, it is a fairly common thing for a person to be like Scarlett O'Hara and say, "I won't decide that now; I'll worry about it tomorrow." Here, you have come to the point of making a choice, and you choose, not one or the other alternative, but not to choose now. Or again, you finish deliberating, and you say, "I can't make up my mind. Forget the whole thing!" Here, you haven't postponed the choice; you have refused to make one. Of course, that refusal is a choice; but it is a choice not to make the choice you were deliberating about.

This sort of thing doesn't seem possible on the determinist hypothesis. If you are deliberating about something, then some influence is making you deliberate toward some conclusion. But then

what stops the deliberation? That it reached a conclusion, obviously. If it doesn't, then presumably it is like what happens when a computer does this, and gets into an "endless loop"; until something from outside turns it off, it just keeps going on and on over the same material. Here, the program itself would have to stop itself.

But notice that when you actually "make up your mind," it isn't generally some obvious conclusion you have come to that makes one course inevitable; you simply say, "Enough! I've got all the information I need; I'm going to buy this car, and that's that." You *choose* to stop deliberating, with the feeling that you *could* continue if you want to; but now you *choose* to *choose* rather than (a) continue deliberating, or (b) postponing the choice and "sleeping on it."

But how can determinism make sense out of choosing to choose, choosing to choose (but later) and choosing not to choose at all? It might explain choosing not to choose as something that happens when an impasse is reached; but how can it explain postponing a choice, especially when you are pretty sure you are going to choose X, but just don't want to do so now for some reason? And, of course, the stopping of the deliberative process can't be something that is *freely* done; it has to be impossible in fact to go on, except that you don't realize what is making you stop at this point.

Given that Newton's Theory of Universal Gravitation collapsed as an explanation of the orbits of the planets based on one tiny discrepancy in the orbit of Mercury from the orbit the theory predicted, it would be hard to call the determinist theory an acceptable theory, when the more predictions we dig out of it, the more they contradict our actual behavior.

On the other hand, the free-choice theory is based on all the evidence that leads to consciousness' being an act that is not subject to the (deterministic) laws of energy, that contains itself within itself and so is immediately aware of itself, as well as being able to account for all these oddities that the determinist theory comes a cropper

against.

Let us, therefore, draw the following conclusion:

Conclusion 9: Human choices are free, though we may or may not be able to perform the acts we choose to do.

This needs a more careful spelling out.

First, the choice itself is free in the sense that it is self-determining. There is obviously no problem in choosing to choose, choosing to postpone the choice, and choosing not to choose if the act contains itself within itself and chooses itself as well as choosing X. If understanding knows itself understanding, then what I am saying here is that choosing not only *knows* itself as choosing, it *chooses itself*.

Second, the choice *chooses the reasons for the choice, and how much weight they have.* That is, the choice can *reject* as a reason for the choice some fact it knows (like the attractiveness of the girl standing by the car), or it can *make of little or great importance* some other fact (such as the color of the car or the size of its motor).

This is consistent with what we said in Chapter 10 of Section 5 of the First Part that "goodness" is not something objective, but an ideal we *freely* create and use as a measuring-stick to compare facts to. It obviously follows from this that *how good* something is depends on the ideal and where we *choose* to rank this ideal in relation to others; and this is the source of one ideal's being more "important" than another. Importance has no more objectivity than goodness. But this is something that we will have to leave till late in the next part, when we discuss axiology (the theory of values).

Obviously, if the choice did not have control over how much weight the information would have in influencing the choice, then it would be constrained to follow the greatest influence, and so

would not be free. But since the choice is a spiritual act, then, just as understanding contains the conscious aspects the relevant sensations within its understanding of the relationship between them, so the choice contains within it the reasons for which it chooses; and since it is self-determining, it also *determines how much these reasons are to influence it*.

Of course, the choice's choosing itself and its reasons, together with whether any given reason is to be accepted or rejected and how important any one is going to be as an influence, is the explanation of how the deliberating process can stop. The choice is driving, as we will see in the next point, the deliberative process; and it simply chooses (for its own reasons) to stop it. Incidentally, you *know* the reason why you stopped deliberating, as well as the reason why (a) you choose at this point, or (b) you choose to postpone or forego the choice.

So far, then, the choice's freedom is consistent with what we know of a spiritual act.

Third, the choice is only influenced by what is conscious; and, in fact, only by facts understood at the time of the choice. Just as understanding is not aware of the energy-"dimension" of the sensations, so the choice cannot (a) opt for alternatives that it is not aware of or (b) use reasons for choosing that it is not aware of, even if these alternatives or reasons may be stored in the brain, and "exist" there below the conscious level.

The self-transparency of choice is, of course, the reason why we consider it so important to be *conscious* of all the relevant information when we make a choice. The choice itself realizes that only what is conscious can affect it; and so it tries to *find* in the brain's filing-system all the information that it thinks relevant before it "makes up its mind."

Notice that when an *emotion* is a reason for a choice, it is not the emotion itself that is the influence, nor how strong it is, but *the fact*

that you have this emotion of this strength; and so the emotion becomes just another fact, in itself equal with any other fact you know as an influence on your choice. If you opt for the chocolate mousse, you may do so "because I really really love chocolate mousse," while on the other hand the fact that you have this same burning desire for chocolate mousse may be a reason for *not* eating the mousse, "because I don't want to become a slave to my palate."

My theory, then, says that Hume was dead wrong when he said that reason cannot move the will. My theory says that nothing *but* reason can move the will. We not only *ought* not to be the slave of our passions, we *aren't*.

And, in fact, Hume's own theory leads to this very conclusion, because he says that because reason can't move the will, sentiment (emotions) must; and, of course, this implies that the strongest sentiment is what does the moving. But then he distinguishes moral sentiments from selfish and base ones, and by implication says that the moral sentiments *ought* to move the will, because if they don't, then we don't approve of the act, and we say that the person ought not to have done it. Why *ought* he not to have done it if his selfish emotion happened to be stronger? Hume has no answer to this. He wants to have a theory of morality based on what is essentially a deterministic theory of the strongest emotion moving the will, and yet he obviously thinks that some emotions ought to be stronger than others. It sounds a good deal like *Animal Farm*'s statement about all animals being equal, except that some are more equal than others.

Fourth, note that, just as "brainwashing" can make you think you understand things that didn't actually happen, because of misinformation or the blocking out of relevant information, the same thing can happen to a choice. Emotions, drives, habits, and so on can influence the choice in an *indirect* way, by controlling the *information* on which we base the choice. The emotion can't

influence directly as such, because what influences is the *fact that* we know we have it, and we have perfect control over how much this fact is going to influence us (if at all), and in what direction. But the *emotion itself*—or rather, the drive of which the emotion is the conscious "dimension"—can influence the choice (as I said in the preceding section) by (a) blocking out facts from consciousness that would be known if it weren't operating to do so, or (b) creating illusions or hallucinations that are taken as facts.

It is here that the posthypnotic suggestion comes in as influencing the choice. In the example I gave, the subject *chose* to remove the light bulb *because* the light was blinding him. The suggestion undoubtedly enhanced the effect of the light on his consciousness to give him a reason for choosing to remove the bulb.

And this is what rationalization is. A compulsion is not recognized as such because it *misinforms* the person who has it. "When your heart's on fire/you must realize/smoke gets in your eyes," says the old song. The reasons for which the drinker has "just one more" are often perfectly valid; it is just that (a) he would realize better all the reasons for *not* having just one more if he didn't have the compulsion, and (b) that reason wouldn't even be there if he didn't have the compulsion. My brother, who is also a recovering alcoholic, says that one of the things that made it originally difficult to quit drinking for him was "the companionship" at the bar. He has since gone to bars occasionally for companionship and realized what terrible companions these people are, so absorbed in themselves they are and so stupid in their befuddlement.

Hence, this theory of freedom also explains how it is possible to control a person's behavior, and even to control his *choice* to behave a certain way by controlling the *information he has access to*. Only this information will influence him, and he has control over its influence; but if you can block out any reason for *not* choosing a certain act and make him conscious of a lot of reasons *for* it, then you can make it all

but certain that he will choose the act. You can't make it certain, because he always *can* choose the very opposite of what reason says; but there's no reason to do so in this case.

That is, a person ordinarily will choose what the information reveals as the most reasonable act (the one that will get him to whatever goal he regards as important); but he *can*, since the choice is free, choose directly against the weight of all the reasons (and of all the unconscious influences too, since they can't affect the *choice*). Sometimes people do this. "I'll hate myself in the morning for this; but what the hell," a person will sometimes say. This does not mean, "The pleasure right now is so strong as to outweigh the pain in the morning," because he realizes *right now* that taking tonight and tomorrow together, he is worse off than he would be if he didn't do the act (otherwise, he would think that tomorrow he will also realize that it was worth it), and he simply *chooses to make* the pleasure more important than the pain.

And this solves the problem of how we can choose what is wrong. It is not that we choose the lesser good and put the reasons for the other's being a greater good out of our minds; it is that the other is not *good* unless we *choose* to make it so. So yes, we can choose evil as such; that is, we can choose to do something *just because* it is wrong to do so, and not for any other reason.

Saint Augustine, in fact, as much as says this in his famous discussion of stealing his neighbor's pears in the *Confessions*. He admits he didn't take them because they were better than the ones in his own yard, but because he knew that it was wrong to take them, and it was the wrongness that made them attractive. He tries to explain this (because his theory doesn't admit to choosing evil as such) by saying that it was the sense of power that was the good he sought in doing what was wrong because it was wrong. But while that may be true in many cases (and might have been true in his), *I* think it is still possible to choose something wrong *just* because it is

wrong—or to choose evil for its own sake. 42

You might say, though, that on my theory, this makes the evil good; and that is true. It can be your goal to do evil for the sake of its evilness; if you do, its evilness is what is good about it for you. I certainly have heard people talk that way. But that is self-contradictory. Yes; and it is choosing a self-contradictory goal that is the essence of immorality. You choose to do something that you know in fact can't be done by you in some respect; and yet you intend that it be done by you even though it can't be. You have an abortion in order not to be a mother, knowing (supposing you do know, and aren't simply mistaken) that you already are a mother, and being the mother of a dead child doesn't make you not a mother. Ask any mother whose child has died whether she isn't a mother. You divorce, knowing that you have promised to be married until death and nothing else parts you; and so you know that you are really still married. You steal to make what belongs to someone else belong to you while it still belongs to the other person. None of these are immoral unless you know that there is something self-contradictory about the act you choose and its goal, and you choose it anyway.

So it is not impossible to choose a goal for yourself that might be a consistent goal for some other kind of being, or in other circumstances, but which is not consistent for *you*, here and now, with the limitations imposed on your nature by your genetics.⁴³ Since the choice depends on facts known, and since it has control over these facts and their influence on it, you *can* deliberately ignore any

⁴²I would assume that the angels who became devils did just this, since they didn't have any emotions (or anything else) to blind themselves to what they were choosing.

⁴³The circumstances or the situation of the act *can* change the relation the act has to your reality. For instance, taking something that was John's is perfectly all right if John has said you could have it.

^{6:} Choice

facts you want to ignore. The Scholastics, then, are right when they say that in sinning, you at least sometimes deliberately ignore inconvenient facts and just focus on some others. Their problem is that it isn't clear *how* you can do this if the will is automatically attracted to some "objective good." Of course, the problem with deliberately ignoring facts you know is that they are still *known*, even if considered as not influencing the choice; and so when you make an immoral choice, you can't plead ignorance. You have just refused to consider them as relevant, or in other words have chosen in spite of them. Hence, choosing self-contradictory goals is possible.

Fifthly, this means, of course, that our choice is absolutely unrestricted in its scope. We can choose to be or do anything that occurs to us. The choice is, as I said in the third point, limited by the information in consciousness at the time; but there is no restriction on which conscious alternative you can choose or which reason you can choose it for. If you are thinking about God, you could say, like Nietzsche, "If there were Gods, how could I stand not being God?" and choose to be God, knowing that a finite being cannot actually be infinite—or, alternatively, you could (as many do) choose to be independent of God, even though you can't actually be independent of God in anything you do.

So, even though our *choice* has no limitations on it (whatever you can think of, you can choose to be), still, our *nature* has limitations on it, and we can only *carry out* the choices that are within the range of our genetic potential.

And this is the source of the moral obligation, which says "Limit your choices to within the range of what is in principle possible for you

at the moment⁴⁴"—in the case of humans, your genetic potential. The reason it is an obligation is, as we will see in the next section, that if you don't, you have made a *goal* for yourself that cannot in principle be reached as you intend it; and since the choice as a spiritual act cannot be erased once made (just as an act of understanding cannot be destroyed once formed), then after you die, this means eternally striving after an impossible goal, or eternal frustration.

Sixthly, our *actions*, in the sense of overt behavior (our properties, except for the spiritual acts of understanding and choosing themselves) are *never free*, *and always determined*. They are determined either by the choice or by various drives and and physical causes, or (generally) by all of them combined.

The Scholastics distinguish between the "elicited act" of the will itself (which is free) and the "commanded act" of the senses or body (which is in itself not free); and I have no quarrel with this distinction, except that I would add to "elicited acts" those of understanding, on the grounds that (a) they are also spiritual and so contain "willing" along with them, and (b) they in fact choose to pick out the particular concept to be understood. Of course, we can't choose to understand a relationship that's not implied in the sensations, and in this sense the choice is not free—in other words, we can't deliberately understand as true what presents itself to us as untrue. 45

⁴⁴Not what is *in practice* possible for you at the moment; one of the ways we develop is by choosing as a goal something that we cannot now do, and work toward being able to do it. We may, of course, not succeed in this endeavor, but the goal is still *in principle* possible.

⁴⁵We can, of course, "lie to ourselves" by deliberately blocking out information that we recognize is there, or choosing deliberately to consider part of the data, or only one side of the story. But when we do this, we are *aware* that we are distorting the

But the "commanded acts," *insofar* as they are *the acts we freely choose to do* are called by analogy (the "analogy of attribution") "free acts," because we as *persons* would not have done them if we had chosen differently, and we *freely chose* them. So when speaking of a "free act," it is a pedantic quibble to say, "Well, the actual *act* of kicking my little brother is not free, so you can't accuse me of freely *doing* it; I just freely *chose* to do this act, and the choice *determined* the act."

But, seventhly, it is possible, as I said, for the energy in instinct to be so strong that the choice can't actually direct it away from the act, and here we have a compulsive act. If this happens frequently, then the person is compulsive, and can't control his actions; if it happens only once or rarely, then the person "was overcome by his emotions, and couldn't help himself."

And this, of course, explains compulsive behavior. The person *actually chooses* not to perform the act, but the drive or habit is so strong that he can't carry the choice through into overt behavior, because doing so involves directing the energy in the brain, and, as I said at the end of the preceding chapter, there can be so much

information—unless, of course, this distortion is due to emotions blocking out the information, and we are unaware of it. It's complicated, but it all fits in.

⁴⁶Karol Woytyla (Pope John Paul II) in his book *The Acting Person* states the distincion this way: acts a person *does* as such ("commanded acts" chosen by the will) and "acts that happen to a person (involuntary acts). He defines a person by saying that only persons do the "commanded acts," though he seems to imply that if someone can't do these acts, he's not a person., which would exclude fetuses and people in comas from personhood. Perhaps I missed this, but I think what he meant was only persons *can* do such acts, in a fundamental sense of "can," whether *in the circumstances* they are capable of doing so. I will talk about this later. If this is what he means, his definition of "person" would be very close to my definition of "self," which I will get to at the proper time.

energy in a given pattern that the spirit can't get it to go anywhere else. ⁴⁷

Thus, emotions, drives, and habits, can actually *determine* actions, and even determine them *against the choice* of the person who is trying to determine a different act. They are "temptations" when they are inclining toward an act and the spirit is directing energy elsewhere; and there is a struggle when they are at the limit of the amount of energy the spirit can control. When they are beyond this limit, the spirit fails to control the act, or alternatively, "gives in" to the temptation and *actually chooses* to do the act that is so attractive.

In the latter case, *both* the drive *and* the choice determine the act; and the person has no excuse for his choice in the fact that "The urge was so strong I would have done it anyway." That may be true, but the strength of the urge didn't make you *choose* to do it. So, even though the act was one which was determined in this case, *it is also a free act*, because the person freely chose to do it.

I hasten to add here something that comes from the fourth point. Emotions and drives can also control *information*, and it is very common, when struggling with a strong temptation, for you to be less and less aware of reasons for not "giving in" as time goes on; and it is apt to happen that when you finally do "give in," you don't think of it as "giving in" at all, because by that time, it seems the only reasonable act, and there doesn't seem to be anything wrong with it.

Of course, as soon as you do the act, then the drive is satisfied,

⁴⁷Since it is always *theoretically* possible to carry out a choice ("if you are determined enough," or "if you care enough"), then there are those who say that no one is ever really out of control. Having been out of control myself, I am inclined strongly to doubt this—though it's always possible, I suppose, that I was lying to myself. I leave that to the Lord. Though, I should point out, I have St. Paul (in *Romans*) on my side.

and releases the energy in your brain, and, like Brünhilde after Siegfied was killed, you realize what you have done and are sorry.

This makes it hard, of course, to judge the freedom of a choice after the fact, when there has been a strong temptation present. After the fact, you are in command of information that you very well might not have been able to realize at the time; and so you can't judge your choice then on the information you *now* have, on the grounds that you "had it available" then. It may have been in your *filing system* at the time, but you might not have been able to *access* it because of the energy in the instinct blocking it out.

And if this is true of the person himself after the fact, it is even more true of someone else's assessment of whether the perpetrator of some horrible deed actually chose to do it, and how informed his choice was. "Judge not lest ye be judged" is a good rule of thumb. St. Paul even says, in *First Corinthians*, "I don't even evaluate myself."

In any case, if the choice is humanly irrevocable, it is otiose to try to evaluate it after the fact, as if "repentance" could remove it. You might be able to *do* something that lessens the damage you have done by the *act*, but there's nothing that can be done about the *choice* by anyone short of God Almighty, once you have made it, any more than Macbeth could have undone the killing of Duncan once he performed the act.

A person, then, "feels not free" when he has chosen to do something and can't carry out his choice. The *choice* is still recognized as free; it is the *act* that is known as not free, because it is *not* the act he chose to do. And this solves the problem of compulsive behavior.

You will recall that toward the end of the preceding chapter, I distinguished psychosis from neurosis on the basis of the fact that in psychosis the *information* was not under conscious control (i.e. the control of the spirit), and in neurosis, the *behavior* got out of control.

What this means is that the psychotic can't *deliberately* access relevant information, or the instinct is creating hallucinations that are so vivid that they are taken for perceptions; the choice does not have the control over information that it normally does for purposes of deliberation. The neurotic's choice can't control his acts. As I mentioned there, it is ordinarily the case that both of these sorts of being out of control are going on at the same time, and the difference between neurosis and psychosis is really a question of emphasis. This theory of freedom of choice perhaps makes this a little clearer.

Let us take stock, then, and see if this theory of freedom explains all that it needs to explain.

First, it obviously takes care of the conviction of freedom nicely. It also, as we saw, accounts for when we feel not free, not that the choice is not still regarded as free, but that the choice can't control the act.

Secondly, it gets round the Scholastic difficulty in that the "will" is *not* automatically attracted to something objective called "the good," but that the goal the choice heads for is itself freely chosen, and therefore "the good" is *created* by the spirit rather than discovered by the intellect.

Thirdly, we have accounted for the difficulty of the posthypnotic suggestion better than the determinist theory could do it. The person freely chooses to do something when the suggestion produces reasons for it and there are no reasons against it; at the same time, the suggestion is both determining the act (as can be seen from the struggle when resistance is offered) and providing the (possibly false) information for the free choice. When the information is patently absurd or too weak then the person recognizes that he is not free.

Fourthly, the theory can easily explain rationalizations of compulsive behavior, and why the behavior is thought to be free, on the same grounds as the explanation of the posthypnotic suggestion

above.

Fifthly, the theory explains, on these same grounds, the discovery of the compulsion by the compulsive. He finds a good reason for choosing not to do the act, chooses not to do it, and then can't carry out the choice. At that point he realizes that something unknown in his instinct is determining the act.

Sixthly, the theory explains the experience of fighting temptations, on the grounds that the spirit recognizes that the energy is getting toward the limit of the amount that it can control.

Seventhly, the theory explains why we feel freer the more information we are conscious of; it is because only consciously known facts are included in the choice as reasons for and against it.

Eighth, it explains why a choice is sometimes corrected when one was made and forgotten information is remembered. The new information is included in the choice, and it couldn't have been included when it was not conscious.

Ninth, the theory explains how we can choose not to choose or choose to choose later, and how we can stop deliberating at any time we choose.

So the theory is consistent with all the data dealing with choices and behavior, and the determinist theory isn't.

Now, as to freely creating goals not being mere caprice, let us look at what is actually going on in a choice.

In ordinary choices, what first happens is that some emotion attracts the person toward some act and makes him imagine himself as having done it (and having gained whatever it is that the act produces in him). It is for this reason that Hume thought that "sentiment" is the only thing that can move the will.

Hume was wrong, however, because (a) this does not actually *move* the will (as we will see in a moment), (b) this is not the only way, even though it is the most common way, for a person to imagine himself as different from the way he actually is; and (c) the

choice can be initiated by imagining *something else* as different from the way it is *because of what the person has done*. The image can come, for instance, as the result of a reasoning process, or by someone's suggesting to him that he could be something he never thought of being. Anything that makes a person consider himself (or his world) as different from himself is sufficient for this first stage.

This image of oneself or one's world as different then initiates the *deliberative process*, which begins with the question, "Do I really want myself (or this thing) to be this way? Why?" And so the spirit then tries to find reasons for an against this as a *goal* for the choice. In other words, the spirit is trying to find being this particular way is good *for the person as a whole here and now*. Does it, for instance, fit in with other goals he has chosen? Does it contradict anything he now is? Is there something else that fits more closely with the set of goals he has chosen as his "real self"? Does he want to modify those goals, and add this to them or drop something and replace it with this? And so on.

Since neither the goal suggested nor any of the other goals is something absolute and objective (they are all subjective ideals, created either by emotions or suggestions or conclusions drawn from other ideals), then the question really before the person is, "What will this make me, and do I want to be that sort of person?" There is a certain objectivity here in that (a) it is a *fact* that this goal (if accepted) is or is not consistent with the other goals, or leads to one of the already accepted goals. Hence, if the act is regarded as a *means* of becoming what one has already chosen as his "true self," then there is objectivity involved. But when the question is one of *what the "true self" should be*, then fundamentally, as Hume pointed out, there is no fact that can be *discovered* which would answer the question.

Here is where the caprice comes in. But this is not to say that the choice of a goal for oneself is *completely* arbitrary, still less that it is

emotions that pick it out. First of all, it is not completely arbitrary because *it is a fact* that certain acts are *higher* or less limited than others. Understanding and choosing, for instance, are spiritual acts, and are therefore higher or greater than sensations or vegetative acts, or acts we have in common with inanimate bodies.

I hasten to say that the fact that act A is higher than act B does not mean that act A is *better* than act B; because "better" implies that one has *already* adopted act A as fitting in more closely to one's chosen "true self" than act B does. So, for instance, the fact that studying now is a higher act than lifting weights now does not imply that studying now is better than lifting weights now.

They tell the story of how St. Ignatius discovered what amounts to this fact. He used to fall into ecstasy whenever—as I remember—the number three (God's number) was mentioned in the classes he was taking; and of course, he missed the rest of the lecture. He finally recognized that, though mystical contemplation was the highest act anyone could perform, (a) you couldn't be doing it all the time, or you'd die of starvation, and (b) it was *not* the better thing to do when you were taking a class and trying to hear what the professor was saying. And from then on, he deliberately tried not to succumb to the "temptation" to ecstatic contemplation of God in class.

He would say that the contemplation was "better in itself," but not "better in the concrete situation." But that position can't be sustained if you think it through. Since contemplation will *always* occur in some concrete situation, then judging it as "better" will always involve the situation, where it's always possible for it to be worse than some more lowly act. But for it "in itself" to be better, this means that it is better *in the abstract*, and, as we saw, this would mean seeing the *relationship* among all the concrete situations, and "picking out" what they have in common. But they don't have "betterness" in common. So really, all that "it is better in itself"

means is that it is a higher type of activity, but this implies nothing about its being better to do it, because you can't do an act in the abstract; it always has to be a concrete act you choose and do. So "better in itself" is simply a misuse of "better" as meaning "less limited"; the implication that it therefore ought to be preferred is false, as Ignatius himself discovered.

Of course, Hume falls into the same trap, because for him, though no act is "better" based on reason, then "better" is supposed by him to be *defined by* "more pleasing": i.e. the one that has the strongest satisfaction attached to it. But since "moral sentiments," judging by the behavior of practically everyone, are the *weakest* ones we have (they almost always lose when it's a question of conflict with selfish ones), then you've guaranteed, not only that people *will* almost always act immorally, but that they *ought* to ("Reason is, and ought to be, the slave of the passions").

All the attempts, since Hume, to base morality on sentiment suppose that *satisfaction* (of emotions) is what is "really good," and (as Utilitarianism holds) "the greatest satisfaction" is the "greatest good" and therefore—here's the contradiction—"the greatest satisfaction of the greatest number" is the greatest good of all, which *ought* to override all lesser satisfactions.

But how am *I* more *in fact* satisfied *emotionally* by doing something that satisfies *the majority* (who may be my enemies and oppressors) more than it does me? Obviously, this is bunk. What utilitarianism, in all its vagaries, has to be saying is that this "greatest satisfaction of the greatest number" *ought* to be what satisfies us most, even when it doesn't. "What's Hecuba to him or he to Hecuba that he should weep for her?" says Hamlet. What's the majority's satisfaction to me that I should do something for it if I personally am satisfied better by doing what satisfies Number One and doesn't satisfy the majority?

The only way you can make sense out of this is to say that reason

says you should work for the satisfaction of more than just yourself. But (a) this contradicts the very reason for saying that "sentiment" and "satisfaction" and not reason motivates the will. Based on the fundamental principle underlying any form of Utilitarianism that has been advanced so far, then, we won't and shouldn't be expected to choose the "greatest satisfaction of the greatest number" whenever something else is more personally satisfying—as it almost invariably is. Furthermore, (b) reason precisely does not say that we ought to work for the greatest satisfaction of the greatest number except on the two self-contradictory premises that (1) only satisfaction (not abstractions) motivates action, and (2) we should ignore our satisfaction and follow the abstract "greatest satisfaction of the greatest number."

So the great proponents of sentiment as moving the will don't believe their own theory, or they would shut up about morality. Anyway, the notion that emotions rather than reason is what defines "the good" even in a concrete situation is silly. This would mean that it is *better* to leap out of the dentist's chair as soon as the drill comes close; it is *better* to eat yourself to death; it is *better* to smoke crack and take heroin (these certainly feel just wonderful, they tell me), and on and on. "If it feels good, it ought to be done" is propaganda that is ruining our people.

Well then, since neither the abstract fact that an act is objectively higher or less limited than another means that it is "better," and since what I just said obviously makes nonsense out of saying that what feels better is automatically better, then we are left with the fact that there is *no* objective way to define "better," and that this precisely does *not* mean a retreat into emotionalism. It just means that "better" is not a *fact* to be discovered *anywhere*.

So we are back to pure caprice in choosing your goals. Well, not *pure* caprice.

First of all, self-contradictory acts imply goals that are the opposite

of themselves, and the spirit, while not *determined* by reason, still *uses* reason. So, for example, if you chose to define the feeling you get when smoking crack as your "good," you realize that this feeling is *concretely inseparable* from addiction, craving, and various other miseries; and so you realize that *if* you choose this as your goal *for the sake of the satisfaction*, you are *also* choosing greater *dissatisfaction* (the side-effects) along with it as your goal.

You can do it, and you can (since we have control over reasons) *deliberately* reject these other dissatisfactions as relevant to your choice—and in this sense the goal is capriciously chosen. You have deliberately chosen as a goal one that is the opposite of itself. And you can do this.

However, you realize that it is *unreasonable* to do this; and while you are *free* to be unreasonable, it does not make *sense* to be unreasonable, and therefore there's no *reason* for choosing such things and there *is* reason for choosing others.

Conclusion 10: The fundamental option underlying every choice is, "Do I want to choose what is reasonable or what is unreasonable?"

That is, there is nothing to *prevent* you from choosing what is unreasonable, because you are free; and so you have to implicitly make the choice of whether to follow reason or not in every choice.

There are degrees of this, of course; and sometimes we may opt to do what is *less* reasonable because it is *more* emotionally satisfying—even though the act does not really set up a self-contradictory goal (i.e. it's not morally wrong). Thus, a person may be tired and decide to watch TV rather than study for the exam tomorrow, knowing that he won't do as well on it as he otherwise wood. It would be more reasonable to give up *The Simpsons* for an

A on the exam; but since there's nothing morally wrong here, the goal (enjoying television) that is ordinarily regarded as less important is deliberately shifted into the more important spot. This is a non-serious exercise of the fundamental option I was talking about.

But on the assumption that a person basically chooses to be reasonable, then it follows that *on that assumption* the higher act will take precedence over the lower act, except when (as you might possibly argue in St. Ignatius' case) the higher act *now* will prevent you from achieving as a goal a *higher total self* than otherwise.⁴⁸

In actual practice, our goals are built partly on reason and what is higher, partly on what we see from people around us (what is "popular"), partly on emotions (what in the long run feels better or one likes more) and partly on sheer cussedness. If you look at the goals anyone concretely has, you can probably find all these elements mixed up in them in complicated ways; and I submit that my theory is the only one that can account for what is so abundantly verifiable.

At any rate, when one has seen the goal, and tried to find out by deliberating (a) what act or sequence of acts lead there, and (b) what other side-effects these acts have, and (c) whether in fact all of these are consistent with the goal one wants from this act and the rest of one's idea of himself as a person—one then *chooses* at some point to stop looking for more information and to "make up one's mind." Where this point occurs depends on reason, other people, emotions, and sheer cussedness, just like the goals themselves; and it varies from person to person and time to time with a given person. And at this point, one chooses to choose and this is the choice (and chooses to

⁴⁸The reason I say you *might* argue this way is that in his actual situation it is hard to see how it is *objectively* higher to be a more educated person who has practiced less contemplation than a less educated person who has contemplated Wisdom Itself more.

choose for a given set of reasons—which are chosen in this act to be the reasons—and not for the other reasons—which are rejected as reasons in the choice), or one chooses not to choose now, or even not to choose at all.

The choice defines the basic *goal* of this choice, and also *accepts* the foreseen side-effects that will also occur because of it as included in the choice (because the spirit knows that they can be avoided by making a different choice, and when one chooses one chooses a *concrete* act which concretely has *many* effects and not just the one really "intended"—the goal as opposed to as side-effect).⁴⁹

The motive of the choice is the goal chosen for the act.

The motive is also called the "reason," the "purpose," the "end," or the "goal" for choosing to do the act in question. (We will see shortly that it is not necessarily the purpose of the act in itself.) But it is worth noting that the motive is the *effect foreseen and intended*, and *this* is what "moves" the choice. But that allows us to distinguish motive from a different term:

The *motivation* for an act is anything that inclined the act in that direction.

Obviously, in a free act (one basically determined by the choice), the motive for choosing the act is the main motivation for the act; but, as we saw, the act itself can also be influenced by drives and

⁴⁹There is a situation, which we will discuss at some length in ethics, in which you can choose an act and *reject* some of its side-effects, when any of the other alternatives is because of its effects worse than the one chosen.

habits, whether conscious or unconscious; and, of course, if the act goes against the choice, the motivation is totally on the sense level.

There is, then, a difference between the motivation of the act and what "moves the will"—which will be important later on for ethical purposes. At the moment, it is sufficient to note the distinction, and to point out that, since *conscious* control comes from the spirit, then you don't have *personal* responsibility (i.e. responsibility as a person, moral responsibility) for acts which were not chosen or whose motivations were not foreseen as side-effects.

But to return to the choice itself, simultaneously with the goal, the choice chooses the *act* which reason recognizes is the first step to the goal (and the side-effects) included in the choice. Basically, the choice is *to do this act*. But of course, one chooses to do this *concrete act* (i.e. this act in this situation) with these concrete effects for this reason (this goal). Since the choice is conscious, all of these are included in the one act of choosing, which, as I said, is also the choice to stop deliberating.

At this point, the choice, by controlling the conscious aspect of instinct, sets up an instability in the person whereby energy is put into the proper motor nerves causing the behavior that is the basic act chosen. (That act, of course, can be refraining from doing something as much as actually moving.) When this happens, the body (the person as a whole unit) is in an unstable, self-contradictory condition whose purpose is the equilibrium that is the end of the process started by this act.

Note that this equilibrium which is implied in the *actual instability* (the act chosen) *may or may not* be the same as the *goal* sought in the *choice*. The person chose this act because he *understood that the act would lead to the chosen goal*, and so the act was chosen "for the sake of" the goal.

But the act is a physical act, and it has it's own purpose; and if it doesn't by its nature lead to the chosen goal, *the choice doesn't make*

it go there. You can't learn music by studying animal husbandry, because the subject you are studying doesn't have an instability whose purpose is that particular equilibrium.

Conclusion 11: The choice of an act as leading to a given goal does not give that act that purpose. Physical instabilities have *in fact* their own purposes, and if one wants a given goal, one must *discover* what acts (if any) lead there.

So while (a) the *goal* is freely chosen and (b) the *act* as leading to that goal is also freely chosen, what is *not* and *cannot* be chosen is *the fact that the act leads to the goal*. Either it does or it doesn't, based on its own structure and what instabilities it can be put into (and put into by the agent, of course. A four-ton weight might be able to be moved, but not by you with your bare hands).

Let me now define a term:

The *value* of any object or act is that aspect of it by which it can lead to a chosen goal.

So what I am saying is that while you can choose the *goal* for any act, your choice *does not give it the value* of leading to that goal; it either *has* the value or it doesn't, and the only way you can know this is by *finding out the objective fact* of whether it has it or not.

Our age has discovered that "the good" (the goal) is freely chosen, but it has thought that for that reason *values* are freely chosen—and in so doing has chosen all kinds of acts that lead *directly away* from the intended goals because it *refuses to find out* whether the acts chosen have the value it tries to impose on them or not.

For instance, tell a teen-ager that it's really undesirable to sleep around, but that here's a bunch of condoms if you do, then you're

saying (a) there's nothing really against sleeping around (since the supplying of the condoms gives that signal) as long as it's "safe," but (b) "nice girls" aren't really promiscuous. The girl who wants to be a "nice girl" then doesn't take the condoms out on a date, because she has no plans on having sex on the date; but then when the boy stops the car on the lonely road and they've talked for a while and he suggests sex, she can't think of any reason not to.

Given the psychology of teen-agers, you could *predict* an increase in teen-age pregnancy from this advice; and yet those who advocate "health clinics" in schools are adamant that this very advice be given "because we've got to cut down on teen-age pregnancy." When you point out how teen-agers receive that advice, these people say "They don't!" because they *want* them to reason differently.

The fact that values lead to *freely chosen* goals means that values are *personal*; but it doesn't follow from this that the values are therefore *subjective*. Values are objective, but personal.

But this brings up the whole subject of axiology, which is to be treated in the next part.

This, then, is choice. It is the spiritual "dimension" of the human being as determining the whole human being. Understanding is the spirit as determining only the spirit, adapting it to the reality of the person himself and the world around him; choice is that same spirit as "spilling over" in its self-determination into modifying the self, and insofar as the self can modify other things by acting on them, into making over its world into its own image of what that word "ought" to be.

It is time, then, to look at the structure of the human being and the human soul, to see what these acts imply about the meaning of human life.

Section 4 The Human Soul and Person

Chapter 1

A spirit organizing a body?

Just as we argued to the immateriality of the animal's soul from the immateriality of its property of consciousness, we will have to see what the spirituality of understanding and choosing imply with respect to the human body's organization. On the face of it, it sounds a little odd to talk about a body's being organized by a spirit, but that's what it looks like. Perhaps Plato was right; perhaps the human soul is something that "gets trapped into" a body. Aristotle, after all, only saved the unity of the human being by making the "mind" his "positive state like light," and by implication, at least, keeping it outside the human being who got "illuminated" by it (Averroes thinks that this mind is the "first mover" of the lowest sphere—that of the moon).

I don't think either Aristotle's or Plato's view stands up to the test of the immediate evidence of consciousness itself. The "active mind," as conscious, would have to know what it is doing as it "illuminated" our minds, in which case it would recognize itself as distinct. But the experience of puzzlement is precisely the consciousness of only the "active mind" at work (since there's no concept to understand yet); and yet each of us clearly recognizes that it is *this individual* (myself) that is "looking at" the evidence and trying to understand. That is, we recognize that it is the same individual who is examining and later

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understanding what he has examined.

As to Plato's notion that the spirit is a distinct something "trapped" in a body, our experience of ourselves in our consciousness is an experience that includes the body within the "self." Plato (and Descartes too, following him) would have to say that the "I" is the spirit, and the body is something the spirit is in and directs. But when you get hit by someone, you think, "He hurt me," you don't think, "He hurt my body," whereas if you were in your car and it got damaged, you'd think, "He damaged my car," not "He damaged me." Any damage to yourself is by way of implication when your car is damaged; but damage to yourself when someone beats up your body is regarded as direct damage to the self itself. So we at least *think* our body is not distinct from our self.

Further, a spirit cannot change or stop acting, and clearly our understanding and choices change (at least by addition, since we recognize past concepts as "already known" if not explicitly conscious), and if you say we are actively understanding or choosing during sleep, then you have a case of unconscious consciousness which is even more difficult to make sense of than the conundrum of how a spirit can have materiality.

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Chapter 2

The human soul's spirituality

Actually, the solution, which I have hinted at several times already in past chapters, is that the human soul *is* a spirit, but is a spirit which *has* an energy-"dimension"—but in such a way that this does not make it immaterial.

The argument is analogous to that for the immateriality of the animal's soul. First, the human soul must be spiritual, because one of its properties is spiritual, and this is a greater act than an immaterial soul can perform, because an immaterial soul cannot perform a spiritual act unless the act also has an energy-"dimension." Secondly, however, the human soul must have an energy-"dimension" or (a) it could not change, and (b) there could not be many *different* human beings.

The reason for this second point is that a body is different from another body of the same type based, not on the parts it is made of, and not on the *form* of the unifying energy (which is the same in both cases), but on the *quantity* of the unifying energy's form. Hence, if there are two bodies that are both human but different as human, then they are different *in their humanity*, which is another way of saying that the human soul (the humanity of the body) is different in each case. But to say one form of activity is different from another case of the same form of activity is exactly what "is limited quantitatively" means.

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Hence, the human soul has an energy-"dimension." But how does this make it different from an immaterial soul?

The answer—and it seems to me the only answer, if what we have said so far in this book has any truth to it, is that the human soul doesn't *need* its energy-"dimension" because it can act without it.

Conclusion 1: The human soul is a spirit that by its nature "reduplicates" itself as a form of energy, but need not do this in order to exist.

Clearly, the human soul *naturally has* an energy-"dimension" as one of its "reduplications" of itself, or it would not be able to organize a body (which implies a certain *degree* of interaction of the parts), it would not be able to turn itself, as consciousness, on and off, and it would not be able to change as consciousness: in other words, it would not be anything like the human spirit as we find it. Further, the energy-"dimension" is not something the human soul freely *chooses* to have (or, of course, we would recognize that adopting a body was a free act, since choices are conscious), but *belongs to the essence of the human soul as such*.

But this says something interesting. First of all, it says that our soul is *not free* not to organize a body—which is another way of saying that it is not consistent with our soul's nature (though spiritual) to do something that would "get it loose" from the body. In other words, as we recognize spontaneously, it is immoral to kill oneself. If our souls were Platonic or Cartesian "ghosts in a machine," then there would be no intrinsic reason for our not being able to slit our throats to free the soul from its prison in the body. But if it belongs to the very essence of the soul to have this energy-"dimension" to itself, then it is a violation of the soul itself break it out of its "prison." The prison is then no prison, but a

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natural limitation.

In the second place, this is the only instance I know of where what is essential is not necessary. If the soul can act without its energy-"dimension," then it can exist without it; because, as we saw in Chapter 9 of Section 4 of the first part, to exist is to act, and, as we saw in Chapter 4 of Section 2 of the second part, any property is simply a manifestation of the existence and is not different from it. This would argue to the conclusion that, it is possible, at least in principle, for the human soul to exist without its energy-"dimension."

But obviously, such an existence would be profoundly *unnatural* for the human soul, since it would be deprived of acts (the ones involving energy) which it is its nature to perform. But the nature, as we also saw in Chapter 4 of Section 2 of the second part, is the thing itself (or the essence, if you will) insofar as it can act. Hence, if it is "the nature" of the soul to perform these acts, this says that the essence of the soul is such that it is capable of performing these acts. So the essence of the soul is that it act with forms of energy; which means that quantity is in its essence. Therefore, what belongs to the essence of the soul is not necessary to its existence, since as spiritual, it in principle *could* exist without quantity at all (and not merely without this or that one).

At any rate, at this point I think I think I can say that my view, however bizarre in itself,⁵⁰ solves the problem of "the union of the soul and the body." It isn't that the spiritual soul is *connected* to a body, because the "bodiliness" is in the spiritual soul itself. That is,

⁵⁰A theory is not to be evaluated on how "strange" it is, but how well it solves the problem in question and with how few assumptions not in evidence. Thus, Einstein's weird theories of gravitation are better than Newton's, because they explain more on fewer assumptions. Why they are for that reason more likely to be *true* will have to wait until we discuss the foundations of science.

^{2:} The human soul's spirituality

insofar as the spiritual soul is a *soul*, it is the energy uniting the parts of the body into a functioning whole; so you might say that the (quantitative) interaction of the parts of the body is "also" spiritual, and the only thing wrong with this formulation is that it seems to be implying an ability to this interaction which is infinitely beyond it as energy.

This, by the way, is what I consider to be wrong with Aristotle's definition of a human being as *zoön logisticon*: a "rational animal" (or perhaps better, a "thinking animal"). It says that we are basically the same as horses and cockroaches, except for the fact that we can think. The emphasis is misplaced here; we are not first and foremost animals which happen also to be able to think (or have spiritual souls); we are first and foremost spirits, which also are forms of energy. We are distinguished from *angels* in that we are embodied by nature, not from horses in that our nature is spiritual.

Conclusion 2: The more proper way to define the human being is as an "embodied spirit" rather than a "rational animal."

Obviously, if the human spirit "reduplicates itself" as a form of energy, there is no problem in its being able to change and to turn its spiritual "dimensions" on and off by simply acting purely as energy, as when we sleep. As we saw in the preceding section, the spiritual acts don't have any faculty as such, but use the conscious "dimension" of some other faculty as their pseudo-faculty. This is perfectly possible if one and the same basic act (the soul) is both spiritual and energy; and it seems to me that, however you twist and turn, it is not possible on any other assumption.

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Chapter 3

Immortality

here are now two questions before us, one of which depends on the answer to the other. First, *does* the human soul ever exist in fact in a disembodied condition? Presumably, if it did, it would then be unable to change, and so would be immortal; so the first question is the same as asking whether the human soul is immortal or not. And if this is answered affirmatively, the second question immediately follows: Since, as we saw in Conclusion 1, this disembodied existence would be unnatural, the soul would then be spending for practical purposes all its life in an unnatural condition (because the finite time we live as bodies vanishes when compared to eternity). But how can we make sense out of this?

Well, let us first see what evidence we can muster to try to answer the first question. It is obvious that the human being (the human body) dies, which means that it is not organized with a human form of unifying energy any more. But since the human form of unifying energy is the human spirit in its energy-"reduplication" of itself, then there are two possibilities: (1) Either the human spirit stops acting (and goes out of existence), because, though in principle it *could* go on existing without its energy-"dimension," it either (a) can't do this in practice, or (b) does not want to do so, and chooses non-existence; or (2) the human spirit drops its energy-"dimension" and from then on exists as pure consciousness, pure spirit.

I think we have already handled the standard reason why people say that the human soul is not immortal. The usual argument against immortality is that the human body is obviously a bundle of energy, united by a form of energy; and since energy is subject to the Second Law of Thermodynamics, even if it made sense to say that the energy uniting the parts (which is, after all, nothing but the interaction of the parts) kept acting when it wasn't any longer uniting the parts, it couldn't act (as it can't in the body, obviously) without dissipating some amount of itself into the universe, and "running down" eventually into heat. And since it has no bodily mechanism to restore this lost energy, it would sooner or later (and undoubtedly sooner, judging by how fast everything deteriorates when we don't eat and breathe) disappear. So even if the soul survived death, it wouldn't survive for long, and it certainly couldn't be immortal.

But that, of course, supposes that the energy uniting the parts of the human body is *just* energy, and is no different as energy from the energy uniting an inanimate body. But we have seen from the very beginning of this part that the *unifying* energy of *any* living body is a peculiar type of energy, and is self-sustaining in a way that (with respect to the organism itself) contradicts the Second Law of Thermodynamics. Otherwise, it would not have its high energy-state as an *equilibrium*, as it does. And, of course, as we progressed, we showed that it is not possible to explain the act of sense-consciousness (which *is* the brain's nerve-energy) as *merely* the brain's nerve-energy. And in the preceding section, it was, I hope, made clear that understanding and choosing have to be spiritual acts, only indirectly related to energy by the energy-"dimension" of the sense acts contained within them.

If the human soul is spiritual as well as energy, then any argument based on the Second Law of Thermodynamics does not prove anything with respect to it. Obviously, *if* it goes on existing after death, it does *not* go on in its energy-"dimension," but as a pure

spirit (which sounds as if it means "pure consciousness" in some sense); and so there's (a) no problem about an interaction's acting without anything to unite; *that* aspect of it is gone. Further, (b) as spiritual, it can't dissipate any amount of itself and "run down," because it has no amount at all.

Scientists are fond of adding to this, "Yes, but there's no evidence that any soul *did* survive death; I mean, all that stuff from séances and religion and ghosts are obvious frauds." They're a little too quick to say this, I think. They're certainly not all *obvious* frauds; and while they may all *be* frauds, the only way you can be certain without actually finding out what the fraudulent aspect is is if you are *a priori* convinced that you don't have to investigate, because the human soul can't survive death. But that begs the question.⁵¹

Personally, I think that most and possibly all things that happen in séances and ghost sightings are either frauds or mistakes; but what we will conclude will imply that such things are not necessarily impossible, and so it might be that at least some of them are authentic. Certainly the argument above against the soul's survival after death leaves so much about human life and consciousness unexplained and inexplicable that it's shallow grounds indeed for closing off the possibility. After all, there's one man who actually predicted that he was going to come back from the grave and did do so; and so far, the attempts to show that the accounts of Jesus' resurrection are lies or mistakes or legends are considerably more far-fetched when actually applied to the texts than the event the texts purport to describe. But that, of course, is something that belongs to

⁵¹I use this in the strict sense of "assuming as one of your premises what you are going to conclude, not in its contemporary bastardized sense of "concluding to a question."

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Biblical exegesis, not here.⁵²

So let us say that there isn't any real evidence so far that would indicate that the soul *doesn't* survive death; and if anything (given how widespread things like ghost sightings are) there is a hint in the other direction. But, as I mentioned, the spirituality of the soul doesn't prove that it *does* survive death. Scholastics think that it does, because if the soul is spiritual, it is simple (i.e., while it may have "dimensions" in that peculiar sense where everything interpenetrates everything else, it doesn't have *parts* that are distinct from each other); and if it is spiritual, it can't disintegrate. And if it's an *act* and it can't disintegrate, then (since it contradicts an act not to act), there's nothing inside it which would make it quit acting, and nothing from outside it (like the body it unites) which would make it quit either.

But this doesn't really confront the difficulty that it is the nature and essence of this particular type of spiritual act to be energy uniting a body; and if it dropped its energy-"dimension" it would then eternally exist in an unnatural condition. So if on the one hand, it looks as if, being spiritual, its nature is to exist eternally, on the other hand, being a material spirit, it seems that its nature is not to exist in a disembodied condition. There's as much ammunition on one side of this argument as on the other, it seems to me.⁵³

Well, perhaps it exists after death, but in another body.

I think this completely misinterprets what the soul is, making it a "something" that somehow "gets into" a foreign "thing" called a

⁵²I might refer you to my *The Synoptic Gospels Compared* if you want to see the conclusions a careful analysis of Mark, Luke, and Matthew lead to.

⁵³And it's interesting that Aristotle came to this conclusion, largely because he held that the soul was the form of a body.

"body." But let us look at this possibility for a minute.

First of all, *if* the soul were to be reincarnated, the reincarnation would have to be *instantaneous*, because if it once existed without a body, it would be purely spiritual and could not change; and so there would be no way it could limit itself quantitatively once again (even if only in one of its "dimensions," since they all permeate each other). Presumably, God could miraculously re-limit it (because he has absolute control over it), but it couldn't do this itself.

Secondly, if it were reincarnated, the "other" body wouldn't be another body at all, but *the same one*. The body is *this* individual body, not because of the parts (elements) it is made up of (as we saw in the first section of this part, these come and go during any body's life, and it is one and the same body), but because it is organized with this kind of unifying energy limited to this degree. Since the soul of George Blair organizing another body would be the same soul, then that body would be George Blair—not a clone (identical twin), but that same being.

Thirdly, identical twins do *not* have the *same* soul, even though they started out with the same soul (because they started out as one organism which was by accident split into two before the body got so complex that the parts couldn't be organized in a living way). If the twins had the same soul, then they wouldn't be just very similar, they would be the same person (certainly they would be if what reincarnationists say were true). But this is absurd, for anyone who knows identical twins. So what would it mean to say that this new body has "the same soul" as some body that died earlier?

Fourthly, since the spiritual acts of the soul are simply *latent* and not erased when consciousness ceases (either by sleep or by not putting energy into the word-sensation), and reawaken *with the recognition of being already known*, then it would follow that if there is reincarnation, *that new body would recognize itself as the "old"* person, just as if it had fallen asleep and waked up again, and

something like Plato's theory that knowledge is "remembering" would be true, and be recognized to be true.

Plato (who held a theory of reincarnation) also thought that knowledge of anything was "being reminded" of the concept (which he thought was a kind of intellectual "seeing" of some Aspect), which the soul had once seen in its purely spiritual existence before it ever got into any body, and which it forgot by being blinded by the body's contamination.

But in the first place, if the soul ever *was* in this purely spiritual condition, how did it ever "sin" in order to get out of it—since moral faults, for Plato, are due to the blinding of consciousness by the body, and are ignorance. The pure spirit cannot be ignorant. So the "fall" from pure spirit could logically never have taken place.

Also, Plato's "demonstration" of his theory in the *Meno* is more easily explained by the fact that "Socrates" was asking the slave-boy leading questions about a diagram of a triangle he had drawn and practically putting the answers (essentially, the Pythagorean theorem) in his mouth—at least if you can see simple relationships between things. Hence, it does not prove by any means that he was simply reminding the boy of what he already knew.

Further, people do get reminded of things they have forgotten, and for most people this experience is recognized as a different kind of experience from learning something that they (at least thought) they didn't know before. But for Plato they would be the same thing.

And the final remark about Plato's theory is that, as is abundantly clear from the *Phaedo*, his view of reincarnation rests on his theory of knowledge as being reminded, not the other way round. But there is a simpler explanation, as I said, of intellectual knowledge, that of being conscious of what the relationship is between sensations.

For those reasons, I think that "reminiscence" theories of knowledge don't hold water, either theoretically or based on experience; but they would have to be true if reincarnation were a

fact.

The reincarnation theory does have going for it the evidence from amnesia victims and stroke victims, however. These people do not recognize that they once knew things when confronted with them again, and seem to have to relearn them. Amnesia victims do, however, begin to remember sometimes; and I would guess that when they do, they are not using new nerves to learn previously known data, but are finally sending energy into the old nervecomplex. This apparently means that, once a link is established between consciousness and some nerve complex (even a created one like a word), then that consciousness is shut off unless that nerve is re-activated. But that would mean that the spiritual aspect of the soul (which is what is supposed to survive the body and get into another one) is totally inactive when no nerves are active, which would certainly happen at the beginning of the new life before the nerves are even formed. But something that is totally inactive doesn't exist.

So if, for instance, I were miraculously reincarnated by God and given a brain with no information written into its nerve cells, I don't see how there could then be *any* continuity between my past self and my new self that would establish that they were the same one. So I think that any reembodiment by my *developed* soul would have to be be the same body's waking up again, with awareness of who I am and my memories intact.

Fifthly, all reincarnation theories I have heard of hold that human souls can become the souls of animals; but this is an entirely different *form of existence*, in which case, there is no sense in which the donkey's soul is "the same" as the human ass he came from in a previous life. The soul, after all, is not existence, but the *form* of existence; so it is simple nonsense to talk about a human soul and a donkey's soul as "the same soul." Furthermore, the donkey's soul is immaterial, not spiritual, and so presumably is not immortal (at the

very least the burden of proof is on anyone who says it is, and that it's going to be reincarnated as something else). But that would mean that even if a human soul *could* become a donkey's soul, this would be a one-way street; and once it did so, it would go out of existence when the donkey died.

But sixthly, *unless* many human beings come from reincarnations of other, non-human living bodies, then reincarnation is not possible, because there are more human beings alive today than the sum total of all human beings of all previous generations, and the population is expanding rapidly. There just aren't enough dead people to be reincarnated as new babies at the rate babies are being conceived.

Seventhly, I suppose you *could* fix this up by saying that new souls are created for the extra human beings, but then, since some human souls just absolutely began to exist, what is your reason for denying that they all do, and for saying that some others existed previously?

Eighthly, if the soul is immortal and it's organizing this body, why would it want to leave it to get into another one and begin the cycle all over again? And that it *doesn't* want to leave the body is abundantly evident from the fear of death that we have, even in the most horrible situations in life.

Ninthly, all the theories of reincarnation state or imply that there's a blessed condition where the soul gets free of the cycle of birth and death and rebirth, and either goes back or goes up to a purely spiritual state, where it no longer has to go through bodily life after bodily life. So presumably bodily life is a punishment of sorts. But how can a pure spirit be punished?

And finally, in the tenth place, reincarnation would make setting high goals for yourself absurd (as Buddhism actually seems to hold), and in fact would make being moral absurd if it was to your disadvantage to be moral. These will form evidence for the survival of the soul after death, so I will treat them more at length shortly. But the point is that if I die and then start over again from scratch (a)

my unfulfilled goals remain unfulfilled, and so what was the point of making them? Further (b) if I could get to an important goal by violating some less important aspect of my reality (doing something "a little wrong"), why shouldn't I? The "punishment" would be that "my future self" would be, let us say, a retarded person; but he wouldn't recognize (a) that he was I, still less that he was being punished for my sin, because he would have no memory of it. And the thought that my sin is going to mean that some dog or kangaroo is going to be born because of it (while *I*, as far as my consciousness is concerned, simply go out of existence) is really of very little motivating value. So two of the strongest pieces of evidence that life goes on after death are nullified if the afterlife is a new embodied life.

No, let's face it, this theory of reincarnation is based really on a faulty notion of "the unity of all life," and it supposes that things that are *similar* have a something in them that is *identical* ("life," or "soul") and that skips from one body to another. As a kind of *ad hominem*, I don't notice that many of the people who hold this and reverence all life have a great deal of reverence for rats or spiders or streptococcus bacilli, let alone celery or crabgrass.

There are lots of things that are nice to believe; but please, let's not slip back into that stupidity I talked about in the very first section of the first part, and say, "Well, Blair, maybe reincarnation is not a fact *for you*, but *for me* it is, because *I*'m comfortable with it, and your difficulties don't alarm *me* one bit." I have no idea why you've read this far if now that I've touched one of your pet notions with facts against it, you're going to hold to your notion and be damned with the facts.

There is no evidence *for* reincarnation;⁵⁴ and anyone who holds it, if he's going to be reasonable, has got to *find evidence against* all the above arguments—and in fact, refute the whole rest of this part of this book (and a good deal of the first and second parts too). So that's all I'm going to say on this topic.

Where are we, then? So far, we have no reason for saying that the human soul *can't* survive death. We have a reason for saying that it *might not*, because the life after death (which can't short of a miracle by God be embodied) is unnatural.

Is there any evidence that would tend to indicate whether or not it actually ceases to act (exist) at death? We can, I think, eliminate from consideration ghost sightings and séances, because, though they *might* be veridical, as I said, there's plenty of evidence that plenty of them are fraudulent, and ingeniously fraudulent; and this makes all of them suspect.

Nor can we use what are called "near-death experiences" as indicative. There are people whose hearts have stopped and whose brains have shown no activity for a few minutes, and then have revived. Some of them (by no means all) have reported experiences they had during the time when their brains were not functioning;

⁵⁴I should parenthetically mention the famous case over a half-century ago written up in the book *The Search for Bridey Murphy*, about a woman who was "brought back" under hypnosis to the memory of her earliest days, and then to a time before she was conceived. She suddenly began to talk with an Irish brogue, and relate events about a place in Ireland (a place she had never been), and call herself Bridey Murphy. The place in Ireland was as she described, and there was a grave of a Bridget Murphy there, as I remember. But it later came out that the Bridget Murphy in question was alive when this woman was a child, and the child used to go over to her porch and listen to Bridey Murphy talk about life in the old sod. The woman did not remember any of this; but apparently her unconscious, to satisfy the hypnotist, called up the memories of Bridey Murphy as if they were her own.

and there is a similarity among many of these experiences (e.g., many report a tunnel going toward a "light" that was not a physical light, meeting dead relatives who were about to welcome them, etc.). But the problem is that if these people revived afterwards, it is more reasonable to say that they were still alive during that brief time when the experiences occurred, not dead; and these experiences might be something that is brought about by the extreme stress they were under in being near death, rather than be an actual witnessing of what was on the "other side," if any. Since this is a plausible explanation of the experiences, then by Occam's razor it is to be preferred over one that supposes an afterlife (at least absent any other evidence).

What I am saying is that things like ghost sightings and near-death experiences might *tend to confirm* a theory about an after-life, provided the theory doesn't predict anything inconsistent with these things, or even predicts that something like them would or might happen. But in themselves, they can't be used as evidence, since there are explanations for them that don't involve supposing survival after death.

Then is there any other evidence? Let us be clear again what is meant by "evidence," as I discussed it in Chapter 2 of Section 3 of the first part, where I defined "evidence" as a known effect whose cause is the fact for which it is the evidence. That is, evidence is something known to be true, but which couldn't be true unless this other fact is true. Hence, we are looking at something in the observable world which couldn't be the way it is (would contradict itself) unless human life goes on after death. Actually, if you examine human life, you find that it contradicts itself in three aspects of itself unless it continues after death: (1) as life, (2) as self-determining, and (3) as demanding behavior consistent with its reality (morality). Let us discuss these in order.

First of all, then, why does human life contradict itself as life if it

ends with death? After all, every other form of life at least seems to end with death; and so does human life, for that matter. What is it that is distinctive about human life that makes it a contradiction for it to end with death and not these other lives? It is the fact we discovered above that it doesn't *have* to end with death.

Let us examine this. If we look back at all the living bodies we have so far discussed, we find that their life is equilibrium, and it is a characteristic of equilibrium to stay the way it is. Living bodies die because of their bodiliness, not because their life has a definite term built into it that makes it shut off after a while. At the moment of death, no matter how old the organism is, there is a struggle to stay alive; and this is consistent with the nature of life in a body that it is constantly trying to fight the body's tendency to stop being organized in this living way (since this way is unstable from the point of view of physics and chemistry). Further, that mysterious act called "reproduction" keeps the form of life in existence (though with a different limitation) even though the original body stops living. Now this is, as I said in discussing the subject in the first section of this part, not an actual escape of the soul into another body; but it does indicate that the tendency of any form of life is to keep existing, even beyond the confines of the body itself.

Of course, all other forms of life have, as far as we can tell, no possibility of surviving death; so the best they can do is what Aristotle called their attempt at immortality: reproduce offspring with the same form of unifying energy. But the human soul *need not* stop existing at death, because it could continue acting in its spiritual "dimension" as pure consciousness.

But if it decided to stop existing just because the body couldn't support this kind of organization any more, or if it *had* to stop existing for this reason, then *this would directly contradict its reality* (*its essence*) *as a form of life*. Hence, we can draw the following conclusion:

Conclusion 3: Human life must go on after death, because as a form of life it will continue existing if it can, and it can.

That is, if human life does *not* survive death, then there is something unique about human life as life. In spite of the tendency of *every other* living body to continue living as long as possible, *human* life would *not* have this tendency, but would "want" to shut off as death was reached. But this is contradicted by our experience of dying. No matter when a person faces imminent death, he tries to stay alive—apparently until the very last moment, when there is often a sort of release from the struggle or acceptance of death.

This acceptance has two possible explanations: (1) the life has begun to shut itself down, or (2) the person recognizes that his life is *not* going to shut down, but will continue. In the first case, it is difficult to see what the point of the great struggle beforehand is; but the second makes perfect sense. The *natural* condition of an embodied spirit is obviously to be embodied; and it tries to stay embodied as long as possible (forever even, were that possible). Further, its bodily nature, as being a "dimension" of its own spirit, would naturally mean that death would be a wrenching apart of its nature. But if, at the point when this happens, consciousness realizes that it is not destroyed and will continue, then this could easily account for resignation.

Near-death experiences would tend to confirm this. They are consistent with consciousness' realization that all has not ended and there is a kind of "opening" of consciousness into a complete awareness not possible when the brain is restricting it. If the spirit has begun to drop its energy-"dimension," but hasn't completely done so, and at the last moment retains it, then this is consistent with the experience (disappointing in almost all cases) of "having to go back for now."

This is not to say that the near-death experiences *prove* this, as I said; but on the supposition that sometimes this dropping of the energy-"dimension" of the spirit can be, as it were, incomplete or temporary (because the body couldn't support human life for a moment, but immediately afterwards can do so once again) then you would predict that the state during this time would be one of consciousness, and greatly enlarged consciousness, because the consciousness would then not be dependent on the energy in the brain to select which of its "dimensions" was to be active.

Conceivably this is why it is drowning people who most often seem to experience "their whole life flashing before their eyes," which is just what you would predict the afterlife's consciousness to be, as we will see. A drowning victim can be in that condition for quite a long time and still revive; and this means that the body *can* still support a human unifying energy if you can once start the parts going again, analogously to cranking an engine that has stalled. If this is so, what might happen is that the spirit stays ready to organize the body again and resume its energy-activities; they are not *lost* yet, but in abeyance, or at such a low level that they don't affect the conscious "dimension" of the spirit, which is getting ready to free itself in the last change it will experience: death.

So it does seem that, on the supposition that human life *could* go on after death (and in principle it can, because of its spirituality) it would be inconsistent with its nature as life to stop existing at death.

Counter to this, however, is still the argument that a life after death as nothing but consciousness is an unnatural life, and how could it be *consistent* with its nature to live in an unnatural condition? There is nonetheless a response to this: We see in the life before death many instances in which a person (or an animal, for that matter) is forced into an unnatural state, such as losing a limb; and rather than die and end the life that is in the unnatural condition, it still tries to go on even in its deprived condition. So taking all of this

together, I think we can say that there is at least a weak argument in the direction of human life's surviving death.

As to the second point, if we examine the implications choice and self-determination have with respect to the structure of the human being, we will see that this involves if anything a more radical contradiction if life does not go on after death.

To choose, as I said, means to establish a goal for oneself, and to initiate a process leading to that goal by making oneself unstable with an instability whose purpose is that goal. The first thing that this implies is this, which is significant enough to state as another formal conclusion:

Conclusion 4: There is no built-in biological equilibrium, or purpose, for any human being.

In other living bodies, the mature state which the organism seeks in its early life and tries to maintain for the rest of its life is genetically determined. But in the human being, this is true only in a very narrow sense. There are certain aspects to the physical structure of the adult that are genetically built in: physical height, the basic type of body (fat, muscular, thin), and so on. But even many of the physical characteristics are deliberately modifiable, as weight lifters, dieters, and people with face lifts, tattoos and pierced ears can testify. And as to the rest of our properties, there is no automatic level of learning, activity, social life, or practically anything else that we attain willy-nilly the way we grow to our preordained height, and which we can do nothing about once we get there. Indeed, the fact that there are things like height which are beyond our control only underscores that most of our reality is not pre-programmed for us. All that is "given" in these other areas is a range within which we can do what we please, because any goal within that range can be achieved if we

put our minds to it.

Thus, the human being, having no biological equilibrium set for him, *cannot avoid setting it for himself by his choices*. If there were no biological equilibrium predetermined and none set by the choice, the person would be like the proverbial man who leaped on his horse and rode off in all directions. You simply *cannot* be in process that is either headed nowhere or headed everywhere; every process has *a* direction, toward some definite equilibrium.

And, of course, every choice sets up a goal for the person. Even if the choice is not to choose, this is a choice to allow circumstances to set the goal, and is as much a choice as to fight these circumstances.

I am essentially echoing Jean-Paul Sartre's saying that "we are condemned to be free." And his example of "bad faith" is instructive here. He tells, if I recall correctly, the story of a girl sitting on a couch with a man, discussing some neutral subject. The man puts his hand on top of hers. She now is faced with alternatives: respond positively to his advance, respond negatively, or do nothing, letting him decide. If she takes the last alternative, wanting him to be responsible, she has "chosen not to choose," but what she has *actually* chosen is to acquiesce in whatever *he* chooses to do in this situation.⁵⁵

⁵⁵Sartre doesn't like this, because she has made herself over into his object instead of being a subject, when she *is* the subject of what happens; and that is why he calls this "bad faith." Since for him *all* that we are is absolute freedom, then this "bad faith" is the *only* inconsistent thing we can do, and so it is the only immorality (though he wouldn't call it that) in the Sartrian system. But the implication is that we can do with ourselves anything we choose, because we are "nothingness"; in which case, I would be interested to see Sartre or anyone else turn himself into a crocodile. But this issue of morality is beside the point here. He is perfectly right in saying that a choice not to choose does not free you from responsibility for what happens because of that choice, however much you might want it to.

The point is that, once confronted with alternatives, *it is impossible not to choose, because to choose not to choose is a choice*. But every choice implies some goal; and therefore, it is impossible not to set goals for ourselves.

But these goals, as I said, imply *making yourself unstable*—physically getting into a self-contradictory condition such that you begin working toward the goal and are not in equilibrium until it is reached. Remember, when we were talking about change in Chapter 3 of Section 3 of the second part, I pointed out that *staying* in the unstable condition was *impossible*, because, as self-contradictory, it couldn't exist; and so movement out of it in the direction of equilibrium had to happen as soon as the unstable condition occurred. I also pointed out that this was why change was used by almost all scientists as their most frequent starting-point for investigation; because the body that is changing is in a self-contradictory condition, needing explanation in two senses: how it got there (the efficient cause) and where its equilibrium is (the purpose).

What all this means is that the structure of the human being is such that the genetic structure does not set the biological equilibrium for him, but only limits the *range of possible instabilities* in the body, and hence restricts the number of choices *that can be achieved*, without selecting any goal itself. And the choice cannot *avoid* setting goals and creating instabilities in the body; hence, the actual biological equilibrium is determined by the choice, and there is no escape from determining it by choice.

Now then, if it turns out that everyone's choices are frustrated in one respect or another if life ends with death, what this implies is that biological equilibrium for the human being is in principle unattainable, and so human beings, alone in all creation, are destined to spend their whole existence in a self-contradictory condition without hope of getting out of it.

First of all, if a person sets goals for himself which are *within* the range of his genetic possibilities, but does not achieve them before he dies, and if death ends his life, then obviously that person's whole life was spent as incomplete and unstable. That much would seem obvious. If this is a more or less isolated instance, it argues nothing about the intrinsic contradiction in humanity itself, however; because human beings *in general* might still be able to achieve their goals.

But suppose a person conceives modest goals for himself, which are within his powers, and he actually attains all of them. This actually happens with the vast majority of people in our affluent society, who, reaching middle age and still having the opportunity to change, "settle down" to a life, which they may grumble about in various respects but don't choose to do anything about. The things they don't like about their life and complain about imply ideals, but not goals, because they set up no instability within themselves to erase the discrepancy (knowing that they could), but simply go on complaining.

But these same people are *vitally interested in security*, and in not losing what they have achieved; and so they *do* have a goal that is a *real* goal: staying where they are. In one sense, it is a pseudo-goal, because a goal in the strict sense implies a state different from the present one, and sets up an instability to achieve it. But in another sense, it is a true goal, because of the peculiar nature of biological equilibrium, which is constantly "under attack" from the body's tendency toward ground-state equilibrium as well as forces from outside, and so must be actively maintained. Given that new goals can be adopted at any time up to death, this maintenance then must be *actively* kept up by the human being by *actively rejecting* any changes in "life style" that would imply a new goal. Hence, there *is* a goal of staying the same in those who are satisfied with where they are.

But of course, the final attack on this is death, with its prior

skirmishes of getting old and losing one's powers. I am a very good friend of an old nun, dead now, who while still in her eighties, bemoaned the fact that she could no longer teach, and that her memory was failing her, and that she could barely walk, and so on. Her *goals* were still there; but I know of few more frustrated people than she, in spite of the fact that she had such a long career of teaching, which she thinks back on with bitter regret. She has lost her self; she is a shell in hopeless instability now—if life does not continue after death in such a way that these goals will be once again achieved.

Obviously, then, for those who have goals that they have achieved and who have the further goal of staying that way, life's ending with death means that, though they have achieved in one sense their equilibrium, it has not been achieved *as* equilibrium in its most important sense.

But there is an objection to this. "Well yes," you might say, "but you don't have to be frustrated this way. You're free to enjoy what you are while you're successful, and then accept the inevitable and be happy growing old because you adjust your expectations to the realities of things." Need I say that this is the point of view, by and large, of the young looking at the old? Not being old themselves, they wonder why the old repine at not being young, when "they've lived their lives already." They say, "Why don't they act their age?" Being a bit beyond the threshold of old age myself, my reply to this is that a person mentally is always at the prime of life; before you reach this age, you automatically think of yourself as older than your chronological age, and once you pass it, you think of yourself as still there. This is simply the psychological reflection of the fact that what we call the "prime of life" is just another name for "biological equilibrium," which is what life really is.

Still, there *are* those who are not actively frustrated with being old and facing death, because they have "accepted the inevitable," and

for practical purposes given up the goals. And this is, of course, as the young people too facilely realize, possible. It is possible always to *choose* to have as a goal the actual situation, and to keep adapting the choice to the reality. And, of course, the point is that this, in the last analysis, is the *only* way to make sense out of your life if life ends with death. On any other use of your freedom but this, you are bound to be frustrated.

But what does this kind of choice mean, as far as human self-determination is concerned? It means *choosing to let circumstances determine what your goals will be.* That is, one *self-*determines oneself to let *circumstances* determine oneself; and this is another version of what Sartre would call "bad faith," because the self-determination abdicates determining itself and simply accepts what is done to it, letting the goals be determined by circumstance.

Hence, the only way to avoid frustration is to use your self-determination in contradiction with itself as self-determination. If you don't, and you don't accept the inevitable and you struggle against it, then you are doomed to live your whole life as a self-contradiction, because either (a) your goals will not be achieved, and therefore you will die incomplete, or (b) they will be achieved, in which case you will have the goal of not giving them up, which will be frustrated.

So no matter how we use our freedom, we cannot get ourselves into a non-self-contradictory condition, if life ends at death. And yet we cannot avoid using our freedom, as I said.

Therefore,

Conclusion 5: Human life must survive death in such a way that legitimate goals can be achieved or human self-determination and choice contradicts itself.

Why do I say "legitimate" here? Because there is no ontological necessity, obviously, in our being able to achieve goals that are self-contradictory to begin with—which in practice means achieving goals that are *beyond the range* of the genetically imposed limits of our possible instabilities (what Aristotle would call our "potencies").

Presumably, we know that we are finite beings, and therefore our freedom to *exist as* this or that is not completely unrestricted.⁵⁶ So if a person *deliberately chooses* to be something that he knows is *in principle impossible for him*, such as being a crocodile, then he has no reason to expect that this goal will be fulfilled. Such a goal would be an *illegitimate* goal, which could only be fulfilled if he were not a human being; and so what he wants is to be a non-human human, and he knows that this goal can't be achieved. Hence, it is only legitimate goals that must be achieved in order for the human being not to be a contradiction simply because he is what he is: a self-determining being.

Of course, if it were *in principle impossible* for our souls to survive death, and we knew this, then I suppose an acceptance of death would be part of our acceptance of ourselves as finite. But as we have seen so far, there is reason to believe that it is *not* self-contradictory to believe that our souls go on existing after death. So the argument above does not negate this. (Of course, the argument that legitimate goals must be fulfilled depends, in fact, on life's going on after death—so obviously it doesn't contradict it.)

All of this is a metaphysical way of saying what can also be said in a psychological way:

Conclusion 6: Happiness is not possible for a human being

⁵⁶It is a denial of this that is what is mainly wrong with Sartre's philosophy.

unless life goes on after death in such a way that the person's legitimate goals can be achieved.

Let me make a couple of distinctions here, by defining a few terms:

Success is the actual achieving of one's goals.

Happiness is the factual knowledge of being successful.

Frustration is the knowledge that one has as a goal something that cannot be achieved.

Enjoyment is either emotional satisfaction, or the knowledge that one's ideals are realized.

Disappointment is either emotional dissatisfaction, or the knowledge that one's ideals are not realized.

The terms, as defined, are not quite the usual meanings we give to them, because we tend to conflate happiness and enjoyment and frustration and disappointment. But the knowledge that you are where you have *chosen* to be is very different from the knowledge that you are where you *would like* to be (but have no intention of working towards); and similarly, the knowledge that you can't have what you *intend* to have (and so "must" have or you are not yourself) is very different from the knowledge that you don't have (or even can't have) what *it would be nice* to have. Since these experiences are so very different, different terms should refer to them; and I chose the terms above.

This means that a person who is sitting in a dentist's chair is

basically *happy* at having his tooth drilled, because he sees that the decay of the tooth is stopped, and the tooth is now "as good as new"; but he is obviously not *enjoying himself*, because it hurts. He has *willingly accepted* the pain as a side-effect of the fixing of the tooth, on the supposition that he weighed the pain against having the decayed tooth, and said, "I'll get it fixed, pain or no pain." And, of course, the pain is not really relevant to the *success* of saving the tooth (and in fact dentists have minimizing it as one of their goals).

Conversely, a person can be enjoying himself, even enjoying himself greatly, and be unhappy. If you are doing something you know is *wrong* (inconsistent with yourself), but which you would very much *like* to be consistent with yourself, then you can be enjoying yourself because your ideal is (in great part) realized; and the emotional satisfaction from the act is, of course automatic and does not depend on the choice at all. But you are still not *happy*, because you know that this enjoyment is a contradiction of what you really are. For instance, an adulterer feels the pleasure of his sexual intercourse with the woman he would like to be his wife, but who can't be because he is already married; and so his enjoyment is *as if* he were married to her. But he isn't happy precisely because he knows that he *is not* married, and this act he is doing is a *pretense* that what is not real is real.

To make one final point about the terms, it is possible to be

⁵⁷Actually, as I mentioned in a previous footnote, this is not actually choosing the pain, because what he has done is *rejected* the *worse* alternative of having the decayed tooth and avoiding the pain. So what really has happened is that he has "accepted the inevitable," using the Principle of the Double Effect. But in *some* sense the pain is there involved in the choice, which is what I was driving at.

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successful and not to be happy, if you don't realize for some reason that you have achieved your goal. There is a young graduate of my wife's university who was drafted yesterday into the National Basketball Association's Golden State Warriors. He had being a professional basketball player as one of his most important goals in life; and during the brief time when the decision to draft him was made and the time when he found out about it, he was successful, but not yet happy. There are stories in history of those who had goals and actually achieved them, but who died frustrated because they weren't aware that they had done so. If life ends with death, these are perhaps the most pitiable of all people.

With that distinction in mind, then, it is obvious that you can only be happy if life goes on after death; because you can't realize that you have achieved your goals unless you have been in fact successful in all of them and know you have been.

But, looking at it psychologically, it is also impossible to avoid pursuing happiness; because every choice you make sets up a goal and defines what your happiness is; and only if you define happiness to be "whatever happens to happen to me" can you guarantee happiness if life ends with death. Of course, in that case you are "pursuing" happiness by simply declaring that you have caught up with it.

And this is why the great existentialist philosophers who think that life ends with death—Sartre, Camus, and Heidegger, to name three—all think also that life is at its base absurd. Camus was the one who said it most explicitly; he refused to believe in a God who would allow the kinds of horrors he saw in Algeria and in Europe during the Second World War; but that meant that this life was all there was; and if so, he concluded, happiness is impossible, and life is absurd; and the most we can hope for is brief moments of enjoyment, but we must accept the fundamental absurdity. As far as happiness is concerned, we are doomed to spend our lives beating our heads against a wall; because we can't avoid setting goals, and we know we

won't be able to fulfill them. Life may have its enjoyable moments, but it is essentially frustration: self-contradiction.

But this can't be a *philosophy*. It *can't* be *reasonable* that life is absurd, because "absurd" means "self-contradictory," which is the very antithesis of "reasonable." Why try to show others that the *truth* is something that *cannot* be true, because if it's true, it's false?

What underlies this whole book (and all of science, as we will see in the next part) is the conviction that, though things might not be as neat and logical as we would like, they are not positively self-contradictory. And since human self-determination is self-contradictory unless life goes on after death, then life does in fact go on after death. This is like saying that if the huge bones in the La Brea Tar Pits make no sense unless there once were huge animals there, then there were in fact huge animals there.

But this evidence allows us to take a step forward, because it demands that life go on after death in such a way that legitimate personal goals can be achieved.

This means two things: (a) It rules out reincarnation, since if you have to start all over again with a clean slate, then obviously any unfulfilled goals in the previous life remain unfulfilled. Even if they were fulfilled the next time round, this would not actually fulfill them, because the fact that they were goals of the previous life would be completely unknown. Further, (b) it means that *personal*, *individual* life must continue after death.

That is, immortality like the Buddhist Nirvana, where we are all absorbed into the Great Everything and lose our individual existence, is fulfillment *only for those who actively want it*. For everyone else, this kind of thing would be frustration. If goals are *freely set*, then this necessarily implies that there is nothing wrong with setting a *less lofty* goal than the highest one possible for you; but the goal implies the instability and defines the happiness; and so if *that* goal is not fulfilled, even if something in itself higher is given in place of it, then

failure and frustration are what happens, not success and happiness.⁵⁸

And this is confirmed by experience. Many of my students are anything but happy having to take a course in philosophy (according to Aristotle—with Blair's concurrence—the highest exercise of the highest ability human beings have), and would far rather take courses that more immediately lead to the goals they actually have, which are, by and large, making more money so that they can have more expensive cars and gadgets. And this seems to be true in general; when a person who has lower goals has "culture" or "the higher things in life" forced upon him, he is bored, not happy—and boredom is simply the realization that you are doing something other than what you would like to be doing.⁵⁹

Let us now see whether the third line of evidence is consistent with this or not. This is the evidence from the obligation we

⁵⁸One could also question, I suppose, whether having as a personal goal the vanishing of oneself into some larger (especially impersonal) something is itself a self-contradictory goal, implying that fulfillment of the self is loss of it. So even those Christians (if any) who have "vanishing into Christ" as their goal have something askew in their ideal, it seems to me. True, Jesus did speak of "One who loses his life for my sake"; but he added "will find it." I will try to show later how the Beatific Vision does not take away our individual lives, any more than Jesus' being God took away from his life as an individual human being. Whether the Buddhist nirvana maintains this individuality in somewhat the same way I am not competent to say.

⁵⁹What about the people who are bored no matter what they are doing? I suspect that they are those who have as a goal something abstract like "excitement," and for whom, consequently, anything familiar will be boring. But since such a goal is analogous to wanting to ride off in all directions, I suspect that the afterlife of these people will be eternal boredom, simply because they've defined "satisfaction" as "anything but what I'm doing right now."

apparently have to act consistently.

We have already touched upon this, in saying that only legitimate goals need be fulfilled; but it needs considerable elaboration.

First of all, I would more or less agree with what I think is the contents of Kant's "categorical imperative" (though I think, as will appear, that a categorical *imperative*—a simple "you must" with no qualifications or consequences, no "or else"—is a contradiction in terms. What I am talking about here is the contents.). As I understand his "Always act so that the maxim of your action could be made a universal law," it means "Always act consistently with yourself"; and as his examples seem to show, this boils down to "Never deliberately choose something that contradicts what you are."

I have several problems with this. First, I am not over-fond of the "universal law" way he puts it. There are certain things I cannot do morally that deal with me personally, such as go out on dates, because I am married. True, I could make a universal law of "Thou shalt not go out on dates *if* married," but this is another way of saying, "Thou shalt not do X, Y, or Z, if thou art in my situation," and what's universal about that?

Secondly, especially if the "imperative" is put affirmatively (i.e. "choose to *act* consistently"), this in effect makes it morally obligatory to accept the present state of myself and not develop. For instance, it is inconsistent with a student as one who does not know that he study and try to make himself over into someone who does know.

Hence, I think the obligation has to be interpreted negatively ("Do *not* choose what is self-contradictory") and the flexibility of the self (this range within which I can actually *do*, under the proper conditions, what I choose to do) has to be taken into consideration. Kant is not at all clear on this; and as Hegel has pointed out, if you press him, then either his categorical imperative makes you guilty no

matter what you do, or it excuses everything. The whole issue is complicated, and we will leave it to much later in ethics.

Thirdly, in the last analysis Kant has only this to offer to one who deliberately violates the categorical imperative: "You have done wrong." So what? No punishment follows, for Kant; because then you might do the right thing to avoid the punishment, and that would make its motivation base, and so it wouldn't be the right thing. But how in practice does adding just this name "wrongdoer" provide any *motivation* to a person who has the alternative, "But it's a choice between being rich and being called a wrongdoer, or being a good person and not having enough to eat." Is hunger worse than a bad reputation? Especially since "the dregs of society" usually have a bad reputation along with their hunger. 60

Still, it obviously makes sense to say that if you choose as a real goal something that, in some respect, you *know* can't be achieved, then what you are choosing is your frustration, and you know it. Hence, you *onght* to be frustrated (you inevitably *will* be frustrated) by choosing such goals. If you define "morality" in terms of not choosing self-contradictory goals, then obviously, you would be better off being moral. So where's the problem in morality?

The problem consists in the fact that we can be frustrated (certainly in this life) by circumstances over which we have no control as well as by deliberately bringing frustration upon ourselves by choosing a goal which in part is not what it is. For instance, I don't see any realistic prospect of getting this book published while I am

⁶⁰Of course, Kant does say that there has to be an afterlife precisely to make sense out of the good person's being otherwise worse off than the evil person—which is my point here. But Kant has the peculiar position that you must not let that motivate your choice.

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alive, much as I think it is something people vitally need to be informed about; but it's not the kind of thing people will buy—and if not, publishers won't accept it either. Given that it's one of the most important goals in my life that people be informed of this and convinced by it (if it's true), then the fact that it isn't even going to be available to be read and rejected is frustrating—and not mildly so, considering how long the book is.

That much is obvious to anyone who is more than a year old. But what does it have to do with morality? The answer is that it is all too often the case that deliberately choosing a goal that is self-defeating (and so frustrating) in some unimportant respect can allow one to attain an important goal.

Many is the author, for instance, who pads a novel with some gratuitous sex because otherwise the publishers won't even look at it. Many is the political candidate who engages in chicanery to get elected, because otherwise he hasn't got a chance. Many is the student who glances at his neighbor's test, because otherwise he won't do well when he "already knew it anyway but just forgot."

The very morning I wrote this originally, I left a set of letters in the gym where I worked out, petitioning for the university to install air conditioning in the weight room; and I asked anyone who agreed to sign one and hand it in at the sports center office. One young lad, having signed said, "You want me to forge some more names?" and when I refused, he said, "Well, that'll get you what you want, won't it?" And of course, it would be more likely to, unless people checked the names carefully—which was not probable given the relative unimportance of the issue. But it would be dishonest. We would be pretending that there were more people actively wanting this than there actually were.

The question in this choice is one of balancing whether integrity means more to you than not having to work out three times a week in a room that is intolerably hot. And, for a person who *values* his

integrity, there is no question.⁶¹

But values are personal, and depend on your goals, which are freely set, and whose hierarchy is also freely set, which means that there isn't any *objective* betterness to integrity, or anything that would make the person mistaken who preferred the other.

Granted, it's a self-contradictory goal to be one of a large group when in fact you are one of a small group (and are only pretending by forging signatures that it's large). But if you put it that way, you're either going to have to give up the comfort or the integrity, and it's up to your preferences which is going to make you worse off.

And, of course, there are much more serious issues than this. Doing something "slightly" immoral like telling a lie that harms no one can sometimes save you and many others from terrible disaster, as captured soldiers with important information know. What do you do? Tell a plausible lie and save your army and your nation (and yourself), or refuse to talk and have the truth tortured out of you when you finally lose control because of the pain? If you do the right thing, you're going to die a horrible death at best; more probably, you'll die the horrible death anyway, and betray your country while you're at it.

But if this life is the only life, how are you better off for choosing to be a hero and quite probably failing, and winding up in disgrace even if you survive? No one will ever know that you told the lie except your enemy, when they find out too late that they've been lured into a trap. And isn't it the job of the soldier to defeat the enemy?

⁶¹For those who care about such things, it turned out that within a couple of years, the air conditioning was actually installed. (As I remember, I pointed out that the university should not wait until some exerciser died of a heat stroke, and that *negative* motivation spurred the powers that be to do something.)

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The pregnant woman who finds out that her child has serious spina bifida and mongolism and is going to be a burden on himself and everyone for years and years and years is not going to have anyone reproach her if she has an abortion. Even if she recognizes that she is killing her child, many will actually praise her for her "courage in making an agonizing choice," and even those who think she did the wrong thing will, by and large, sympathize with her and not hold her in contempt. What does she have to lose? A life. What does she have to gain? Not watching her child, herself, and her family in torture for the next twenty to forty years, until this wretched unfortunate dies of his own accord. It isn't as if he wasn't going to die anyway; the only thing *wrong* with it, after all, is that she is deciding *when* he is going to die, and she doesn't have that right. It's not that it won't be good for all concerned.

Everyone can think of examples like this; you do the right thing and you lose your job; through no fault of your own you find yourself in the middle of a drug transaction, and you either go through with it or they kill you; and so on.

But it *cannot* make sense to violate your own reality in order to fulfill it; it *cannot* make sense that, in order to avoid frustration, you must deliberately seek frustration. The trouble is that it *does* make sense in a world which can frustrate us against our will; and often leave us no way out of simply devastating frustration except that of actively choosing a small frustration.⁶²

In this, more than in the matter of self-determination, it is clear that life is completely absurd unless it goes on after death in such a way that those who deliberately choose to frustrate themselves will

⁶²We will see later that there's something legitimate like this in the "Principle of the Double Effect." But the application of this principle precisely *excludes* the (known) evil effect from the *choice itself*.

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be more frustrated than anything that could happen to them (or those they care about) in this life against their will.

As a matter of fact, this truth is so obvious that the moral world is really split into two basic camps, but with most of us having a foot in each one. First there are the "realists" who have nothing to do with any God or life after death, and who do what is right when it is advantageous and do what is immoral when it is advantageous. They have no quarrel with morality, as long as it gets them where they want to go most efficiently; and many of them have even less of a quarrel with the appearance of morality, like Mr. Pecksniff. Then there are the people who believe in God and the afterlife, and who try with might and main to keep their integrity unsullied—but at what a cost, as the leader and inspiration of many of them, Jesus, can testify! The really nice guys do in fact finish last.

And then there are the rest of us, who are afraid enough that there *might* be something beyond this life that, like Hamlet, "the native hue of resolution is sicklied o'er with the pale cast of thought," and we don't do the really bad things that would get us most efficiently to our goals—and so we lose them—but who see the other dishonest people advancing, and in case they might be right, we cut corners here and there. Enough so that we don't finish last; leave that to the hypocrite "nice guys"—another of the "benefits" of being truly honest is that everyone thinks you a hypocrite—but not enough so that we really get ahead, and the real crooks walk all over us leaving us grinding our teeth with rage, because we don't dare to be that intelligent.

And so most of us have the worst of both worlds. Low on the totem pole in this life because we're afraid of an afterlife; but at the same time, guaranteeing misery in any afterlife, if any, by our sordid little attempts at feeble illicit pleasures and gains. And we hope that the Lord will "forgive" us because we've only spat gently in his face and didn't really use a stick to whack him on his thorn-crowned

head. If I were the Lord—and you may thank Him I am not—this would be the kind of person I would be most indignant with; and in this connection, I am reminded of that terrible passage in *Revelation*, "Because you are neither cold nor hot I am going to vomit you from my mouth." God is no fool.

At any rate, if human conduct is not to contradict itself, only one of these alternatives is possible: that there is in fact an afterlife such that moral conduct is fulfilled and immoral choices make you worse off *according to your own standards* than any gain you would have to forego by being moral.

That is, it is not enough to say that the afterlife for the moral person is in itself higher or "objectively better" than for that of the immoral person. Since standards and "the good" are subjectively created and not objectively discovered, then, as I said, what is objectively higher as an act is positively a *dis*value to one whose goal has nothing to do with that act. Hence, even offering the Beatific Vision has no motivating force to a person who couldn't care less if he never saw God face to face ("Why would I want to be staring at God forever?"), but who wants that man's wife for his own. Even King David had problems this way, if you recall.

Therefore, somehow this afterlife has to be more advantageous by the standards of the agent for him *reasonably* to consider it when confronting a huge advantage in this life as opposed to a tremendous disaster if he acts morally.

To state the moral dilemma perhaps most clearly, there are *two senses* in which "it is reasonable" to do something (a) that it is consistent with the reality you now are and isn't a pretense that things aren't the way they are, and (b) that it leads you to the goal you want to achieve. The first sense of "reasonable" looks backwards to the *agent*, and fits the act to it; and this is the sense that Kant saw when he defined morality; the second sense looks to the freely-chosen *goal* of the act and asks whether it gets there; and this

is the sense that Hume used to define morality. Neither philosopher can really handle what happens when the two senses come into conflict; because then what is reasonable is unreasonable, and there is nothing to pick out which sense of the term is the "right" one.

And what I was saying just above is that any theory that is to make moral conduct not self-contradictory has to make what is "reasonable" in the first sense *always* "reasonable" in the second sense *no matter what the person's goal is, and no matter what the priorities of his goals*. Only in this way can it make sense to be moral for a being with free choice.

Can this be done? Not by some contrived theory that is jury-rigged to achieve this purpose and be damned to everything else. But if the world we live in is a non-self-contradictory world, then it would have to be the case that our "needs" for a theory of morality would be met by the nature of the world and especially of ourselves. The consequence we desire should not have to be wrenched out of our look at human nature, still less tacked onto it, but should naturally follow from what we have so far seen.

If, then, supposing what we know of this life and what a disembodied, eternal life would have to be like is true, it follows that it is always advantageous to be moral, we have a very very strong argument that (a) there is indeed an afterlife, and (b) that the rest of our theory about human spirituality and so on (and even the nature of spirituality as opposed to energy) is on the right track.

And in fact it follows. Let me just sketch it here and draw the conclusion; and then I will discuss it at greater length, because it gives a clue to the basic meaning of life.

Since the life after death, if any, would be a purely spiritual and unchanging life, and would, as we said, involve a reawakening of every conscious act we have ever had, making each act a "dimension" of the one colossal act of consciousness, "This is all that I am," where each act is part of what "This" means, then let us look at what is

involved if a person makes the tiniest immoral choice ever in his lifetime before death.

When he made that choice he *knew* that in some (perhaps very unimportant) respect, he intended to be something he couldn't be. The woman who has the abortion, as I said, intends not to be the mother of this child; the politician who takes bribes intends to be the good statesman who behaves dishonestly; the thief intends to use what does not belong to him as if it did (implying he intends it for practical purposes to belong to him—and what *is* belonging if not "for practical purposes"?); and so on.

Now the actual self-defeating (because self-contradictory) goal in such acts may be of very little importance in the person's life in comparison with the goal that is actually (or probably) achieved; but it is there, or the person has made a mistake, not been immoral.

But that means that the person *eternally intends* to be something he can't be; eternally not only would like, but *wants*, decides to be, something he knows he can't be. He cannot give up the goal, and he knows he cannot achieve it. He is eternally frustrated. Even if we suppose that all his non-self-contradictory goals are fulfilled, he has this goal forever which cannot be fulfilled and which he forever will be trying to fulfill (because it is a goal, after all, not an ideal). Thus, in some perhaps unimportant part of his life, he is frustrated forever and ever and ever.

Once pure spirit, of course, there could be no getting rid of this one frustration, because (a) the goal *cannot* be granted to the person, since it is a contradiction in terms and can't exist, and (b) the act of wanting it is not a *part* of the whole act, but *one and the same with the person's whole act of consciousness*. If he were to give up the desire, then he would go out of existence, because the desire contains all the rest of him within it, and every other "dimension" of him contains this desire within itself. True, the person with this one frustration is a great deal more fulfilled than frustrated; but he *is* frustrated,

forever.

Now let us take this same person and compare him with what he would be like if he gave up this minor frustration and chose the alternative, which, let us say, was his being tortured to death and the untimely deaths of twenty million other people. If we look at the person himself, he will be everything he was in the other case, except for that nagging frustration; so as far as his eternal life is concerned, he has lost nothing and gained the lack of frustration. The pain he endured, of course, ends, and the years of it vanish into nothingness in the face of an eternity of fulfillment.

And the same goes for those whose deaths were brought about as an unchosen side-effect of his virtuous act (we will see later, as I have hinted, how these can be unchosen). Their pains will cease, and they will be exactly what they have chosen to be—with all their frustrations and fulfillments just what they chose to be—and so his act has not made any *eternal* difference to them.

Finally, if you compare his frustration to the temporary pain he has caused himself and others to find out if to him it was "worth it" to save the twenty million the agony of their dying, then let us say that by his standards, it takes him a million years of this minor frustration to compensate for the suffering of one of them; before the million years are up, then he considers it "worth it" to bring this frustration on himself and save the pain of the other. But after that million years, if the other's pain were the only thing he had saved by his little immorality, his frustration then would gain the upper hand, and the amount of "evil" would overbalance the "good" he accomplished in the act.

But of course, this is only one person. He saved twenty million from comparable fates. Well, but now that we have a scale, we can see what it takes in his frustration to balance the "good" he has accomplished by sparing them the horrible death. After twenty million times twenty million years, he has now reached the point

where, according to him, his act is now "as good as bad" in its effects; and from this point on, according to his own standards, the "bad" that results from it (the small, but oh so prolonged) suffering outweighs the finite good he has accomplished by the act, and so he (and the world) is worse off for doing it.

And, of course, since for eternity, twenty million times twenty million years are as a day, then once this point is reached, his term of being at a disadvantage is just beginning; and after twenty trillion times this number, he is still as far away from the end as ever.

This supposes, of course, that you can measure eternity in time, when in Chapter 6 of Section 3 of the second part I said you can't; but eternity, though not in time, is *greater* than time; and so for purpose of this discussion the imaginative picture I have given is valid.

And the point is that, no matter *what* good for yourself or others you accomplish by being immoral, the *eternal* damage you do to yourself will ultimately *by your own standards* make you worse off than choosing horrible, but temporary, agony to avoid it.

And all of this naturally follows if life after death is unchanging and if our consciousness, lacking our brain, continues as total consciousness—which is the only alternative, because partial consciousness depends on the brain, and total unconsciousness means in fact that life does not go on after death.

Hence,

Conclusion 7: It cannot make sense not to violate your own reality (in situations where this is to your advantage) unless life goes on after death.

And notice that this conclusion fits in nicely with the preceding one; all *legitimate* goals will be fulfilled, and all *illegitimate* goals will

remain with the person who will forever strive after them and forever, like Sisyphus, be thwarted in attaining them—but not, like Sisyphus, by the spite of some angry god, but simply because the goal itself is not in principle attainable.

Note further, by the way, that if fulfillment is *not* given to all legitimate goals, it makes sense once again to be immoral; because in that case, the moral person would fulfill forever only the goals he had *actually* fulfilled in this life (and the most lofty and important would likely be unfulfilled), while the immoral person would have fulfilled his important goals and only be unfulfilled in unimportant respects. Hence, if we can't achieve *all* our freely set non-self-contradictory goals, and fulfill them eternally, then it is better to violate our reality in unimportant ways to keep circumstances (or even—perhaps especially—others' wrongdoing) from violating those aspects of ourself which are most dear to us.

Then where are we? First, if we have spiritual souls, they can survive death and exist without a body. But if they do, this existence has to be eternal and unchanging, and involve total consciousness. And they do in fact go on in this way for the following reasons: They would contradict themselves as life (which tends to prolong itself) if they stopped existing when it was possible to continue. Second, if self-determination is not to be a sham and a cheat, then this eternal, unchanging consciousness must also be the personal, individual consciousness continuing forever, aware somehow that all its legitimate goals have been fulfilled, as well as totally aware of everything that happened to it during this life. And, third, if it is to make sense to recognize and accept the limits we were given for exercising our freedom, then not only must all goals set within these limits be eternally fulfilled, but all goals which presume to deny our finiteness and go beyond these limits must be eternally frustrated.

Thus, one of the major aspects of life itself (its being equilibrium) and two of the most significant aspects of life as human make no

sense unless individual consciousness continues after death.

But how is it possible for the *individual* consciousness to survive death, if the soul drops its energy-"dimension" and exists as a pure spirit? Since the soul is the *form of activity* of the human being, then doesn't that mean that what exists afterwards is *humanity*, not the individual? It is the *quantity* that limits a given form of activity to being "only this example" of the form of activity, and therefore allows there to be many of the same form of activity. If the energy-"dimension" with its quantity is lost, then all human souls would be identical, and so once you die, your soul would be absorbed into "humanity-itself" (i.e. an act that in itself exhausts what it means to be human), and you would lose your individuality—which contradicts the evidence from self-determination and morality that there is a life after death in the first place.

The solution to this dilemma is that as we go through life, we accumulate acts of consciousness (because our senses, with their energy-"dimension," are acted on by different energies, and we understand new relations based on them), and we create goals by our choices. Hence each of us, at the end of life, has a unique set of acts of consciousness waiting to be unified into one complete act.

Thus, after we die, each of us is not *humanity*, but the act of consciousness which contains (a) all of the conscious experiences we have ever had, and (b) the knowledge of the fulfillment of all our legitimate choices and that of the impossibility of fulfillment of all our immoral ones—and only this. Knowledge, for instance, that we hadn't acquired before death and that we never chose to acquire, will be forever beyond us (not that we will be frustrated by this, since we did not choose to have it). We will be "with" everyone we have loved in this life, because to love is to have as a goal the other person's

(self-defined) fulfillment, and we will know the other as fulfilled. 63

The fact that we are just this particular set of conscious acts all rolled into one is what really is the "transcendental relation to the body" St. Thomas talked about in reference to disembodied souls, giving them "individuation" even though they had lost their "matter." We acquired this set *because we were embodied*, and through the energy-"dimension" of the spiritual soul; when this is lost, its effect is that the consciousness is now restricted forever to being less than it would have been if it were a pure spirit in the first place, or in fact if it had not been the same act as the unifying energy of this particular body in the situation in which it had the energy acting on it that produced the particular sense consciousness each of us had during this life on earth.

So it *is* possible for each human soul to be both a spirit and an individual, and for us not to be absorbed into abstract humanity and lose our identity as individuals.

⁶³And so I "now" (i.e. eternally) know you, reader, supposing you exist, because it's for your happiness I'm doing this—though I realize that you're probably anything but happy having to wade through all this verbiage. How does it feel to have a ghost looking over your shoulder? But don't worry, I won't say "Boo!"

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Chapter 4

What life is all about

et us take it, then, as established as solidly as it can be that life goes on after death, more or less along the lines described.

And as I say, this is corroborated to some extent by near-death experiences.

What of ghost sightings? If we suppose that a person, when being killed, conceived of the goal of letting the world know that he was killed; and if we suppose that this goal could not be fulfilled by anything but something like a ghost, then the theory would predict that the haunting would occur. Presumably, such goals would be met in other, more normal ways whenever this is possible; because it would be the goal itself rather than the form the goal would take that would be fulfilled. Conceivably, one of the reasons fewer ghosts are sighted now than formerly is that few people believe that ghosts are anything but frauds or delusions, and so very few now in dying conceive of goals that would involve their wraithlike reappearance after death.

I hasten to say that I am not claiming that there ever has been an authentic sighting of a ghost; and I don't know what you would do to verify one (some have claimed to capture them on film). All I am saying here is that if my theory is true, there is nothing impossible in there being such things.

But there is, I think, a rather surer way of verifying the theory

than wandering through castle halls at midnight with an infrared camera. The theory says that all legitimate goals of people will be fulfilled after death. This means that those who had ambitions for others rather than themselves would have to have those ambitions fulfilled, insofar as it is consistent with the others' freedom.

This qualification needs a little discussion. If the fulfillment of my goal involves the fact that you can't fulfill your goal, then obviously my goal involves a contradiction, because it supposes that only I am to be the one who is fulfilled, while you are frustrated. This, of course, is what *envy* is: the desire that another be frustrated. And insofar as envy is a part of my goal, then the goal contradicts itself, and the choice is immoral, and so is doomed to frustration. Hence, I can't be the world's greatest philosopher if this means that Kant and Hegel and Aristotle and St. Thomas are deposed from consideration as great philosophers, and are somehow "beneath" me as philosophers. What "the world's greatest philosopher" has to mean is that I reach the pinnacle of what "being a philosopher" is (which would mean knowing what the facts actually are on all the subjects which interest me—even to finding out that what I have so far discovered is radically erroneous); and if others share that knowledge with me, where is my gripe?

So you have to ask yourself what the *actual* goal is (i.e. what is the *act* you intend to perform: the property that belongs to you as your "real self") before you can assess whether it involves a self-contradiction or is fulfillable *in the concrete expression* you clothe it in.

I presume, for instance, that Governor Dukakis of Massachusetts, who was defeated for the Presidency a while back by George Bush the Elder, had as his goal being President of the United States. Clearly, he is not, and any politician will tell you that he never will be, President of the United States. Then how can his goal be fulfilled, let alone eternally? Note that it cannot be fulfilled by *expe*-

riencing himself as President eternally after he dies, without actually having ever been President; because this would mean that you could fulfill your goals by simply dreaming that you had done so, when actually you hadn't done it at all; and the only difference would be that you didn't wake up. But this would be living a lie. Governor Dukakis actually intended to be President, and is frustrated by not being President; he did not simply intend to imagine himself as President.

But of course, he can't fulfill that goal without putting someone else (who also has the goal) out of office, and just shifting the dilemma somewhere else. Since there are dozens of candidates for President every term, who go through the torture of the primaries until the hopes are dashed one by one, there is no way all of them can actually hold office.

So it seems the theory has come a cropper. But it hasn't, as I indicated above when discussing my own ambitions. What personal development comes from holding the office can, of course, be achieved without actually holding it. Further, any ambitions for the country will be achieved, though not necessarily in the form under which they were conceived (just as I will know the truth about, say, the afterlife, and can't expect the vindication of what I am now writing—or perhaps better, just as my views will somehow lead to the truth, even if they prompt someone smarter than I to see it by directly contradicting what I am now writing). Hence, if Mr. Dukakis chose to help the country by, let us say, instituting a national health insurance, and if (let us suppose) such a program would be more detrimental than doctors' getting together and lessening their fees to a reasonable amount and pressuring institutions and the government to reduce waste and redundancy, then this latter program would go in, and the country would be better off—which is what he really wanted. If what he wanted was praise by others, then I suspect he is rather doomed to frustration on this also, given that this means that

he wants others to adopt his ideals and not formulate their own.

At any rate, it would be possible for Mr. Dukakis to fulfill the *legitimate goals* implied in being President without actually being President. People who have failed at being President have gone on to perform great service for the country even in this life, and been recognized as its benefactors: Daniel Webster, Henry Clay, William Jennings Bryan to give a few names that come to mind as readily as the names of many Presidents.

But it would follow from the theory that if a person had something he wanted to offer others, then they would have this gift after he died, even if it was not available during his life on earth.

This is, of course, why I am writing this book, which otherwise is a masochistic exercise in futility. I think that what I have to offer is a view of life that makes sense—and not only makes sense, but makes life exciting and wonderful—and I am writing it down so that it will be available to be read after I die (which I rather hope happens soon; I would like to get started giving people a chance to change their lives). ⁶⁴ If I have been dead a couple hundred years as you read this, then these words themselves are at least corroboratory evidence that what I am saying is basically true, and that therefore you too will be able to achieve the fantastic ambitions you have conceived for yourself, as long as there is no immorality in them.

And if you look at the people who have made the greatest difference in the world, you find that an enormous number of them did their work only after their death, and in life were not considered much of anything. To take the most obvious example first, Jesus was not recognized as the Prince by his own subjects, in spite of the

⁶⁴As I revise this, I've been waiting considerably longer than I expected, and a great deal longer than I hoped at the time. How much longer do I have to wait? God knows

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proofs he offered; and no one, not even (least of all, perhaps) his own followers, had Clue One to what he was trying so hard to teach them-until he died and came back to life (they weren't even expecting that literally to happen) and the Spirit came down fifty days later. Socrates never wrote a word, but was put to death because his ambition was to make people think rationally about their lives; and he is still bothering people by his questions, through the writings of Plato—who had his own ambitions, which are also being fulfilled. Mozart died a pauper, and no one, I believe, is sure even where he was buried; his music, as Amadeus has one of the characters say, had "too many notes." But now his music is all over the place, including in Muzak—which would fit his rather odd sense of humor, I think. Bach was just the organist in the Thomaskirche in Leipzig, who wrote those enormously long things for the church choir and congregation to sing—undoubtedly badly. He was forgotten, they tell me, until Mendelssohn discovered his work and realized what it was—and now choruses of hundreds perform things like his St. Matthew Passion flawlessly to the enrapturement of audiences in the tens of thousands. And as one classical artist at the Grammy awards said recently, "Our recordings don't sell as well as Rock, but the hits last longer."

And this is true in all walks of life. St. Thérèse of Lisieux was just a nun shut away in Carmel, who wanted to "shower roses on the earth," and seems to be doing it, judging by the wonderful things people report having happen to them after praying for her help. (I want to do this too; so if you want something and I'm dead now, then ask. I can't do it unless you ask, because you're free. But if you want, I'll do what I can, and I am now extremely powerful, because at least ass I write and revise this I have colossal ambitions.) John Kennedy had as one of his many goals when he was shot "to put a man on the moon—in this decade." I worked for *Sky and Telescope* during that decade, and the prospects, with rockets being aborted left

and right just after liftoff, were ludicrously slim. But it happened. Lyndon Johnson said afterwards that he—the wheeler-dealer *extraordinaire*—spent his whole first term in office carrying out the program John Kennedy couldn't get through Congress on his own.

And Martin Luther King had a dream for this country, and saw the mountain before he was shot. I haven't lived to see the dream fulfilled, by any means, and probably won't; but I've seen progress toward it—and progress by peaceful means, which was also his ambition, and was about to be thwarted by the Black Panthers and so on. But his assassination can justly be said to have put a stop to that movement. So I have every confidence that in the proper time and the proper way, "little Negro children will sit down and play with little white children" and no one will make anything of it; whites will marry blacks with no one raising any more of an eyebrow than happens now when Italians marry Irish. If it is of any significance, I add myself to those who have this goal; but I am sure that Dr. King does not need me to help him—though I will be happy to meet him when I cross over to the other side.

Go through history and find where the great advances were made; and you will find very many of them actually made by the ambitions of those who died without before achieving them; and whose death was often thought of as a quashing of them.

How explain this? At least one explanation does not rely on coincidence or the perversity of mankind to adopt a cause whose author it has rejected. There is one explanation that says that *having* the ambition guarantees its fulfillment, provided it is not self-contradictory.

And this means that you and your world *are in your hands*. It all depends on what you want to make of it.

Conclusion 8: You and your world will be exactly what you

choose it to be—no more and no less—with the single exception that self-contradictory goals will not be fulfilled.

What does this conclusion say, then, about what life is really all about?

First of all, what it says is that the life you live now is primarily speaking the life in which you *create your eternal self*.

And this is where the existentialist philosophers, including Kierkegaard, seem to have discovered something true about humanity that was not understood until then. As far as your "development" is concerned, you can't *find* yourself, nor find "the plan of God" for you, because your self isn't there to be found; you have to *make* it—and make it, as they realized, by your choices.

One of the flaws in existentialism was that this discovery, which came about by way of a reaction to the super-systematization of Hegel, repudiated "science" and "reason" and everything to do with it, and made choosing your self a kind of "leap of faith" or exercise in absurdity (with "authenticity" being "living for death"), as if it were anti-rational, rather than trans-rational but comfortable with and using reason. And in some, like Sartre, the choice was everything, and the implication was that you could be anything you chose to be; and anything connected with morality or "human nature" was anathema.

But of course this self-creativity is possible, because we are finite, only *within limits*. And the limits are rather interesting.

What is given in the beginning is the basic range of possibilities you have, plus a body which finds certain acts easier and more enjoyable and others harder and emotionally less satisfying; but nothing except things like height is fixed from conception, as I said.

Let us look at these "natural talents." They are the inclinations you have toward certain acts and away from others because of the

peculiarities of your body and your brain, with its greater or lesser capacity to activate many nerves at once, and the peculiarities of its basic "program," giving you spontaneous attractions and repulsions.

Let me immediately say that these talents carry no imperative or obligation along with them. There is a misreading of Jesus's Parable of the Talents that seems to imply that, if you don't develop one of your talents, you are facing eternal suffering. For those who don't know the story, it is that a king, on leaving his country, gave enormous sums of money (numbers of "talents," a heavy weight of gold, amounting to millions of dollars) to his aides to invest. When he returned, he demanded an accounting. The aide with the largest sum (ten talents) reported that he had invested it and doubled it (and was rewarded for his pains), as did all the others (and so were they), until the one who had been given one talent reported that he was afraid he might lose it, so he buried it. The king was enraged and had it taken away from him and given to the one who now had twenty—and he himself was tortured. Our word "talent" meaning an innate "gift" over and above our basic human genetic potential, comes from this story.

But this misrepresents the story. Jesus was talking about the gift, specifically, of the Good News about the Kingdom, about the message he was delivering to mankind. Anyone who received this and did not pass it on but kept it for himself was doomed to lose the benefits of the message itself, because it had to do with the blessing on those who were generous and not self-centered. But he didn't intend, I am sure, to say that he was going to lower the boom on you because you had facility in playing the piano but chose not to develop this and

became a nuclear physicist instead. 65

If you take this story in this broad sense, where all your talents fall under it, then human freedom is destroyed; because what it would then amount to is that you would have to examine yourself and find out what you were best suited for, and choose that, or you would be choosing eternal weeping and gnashing of teeth. But it would be gratuitous cruelty for God to give us freedom and then absolutely no room to exercise it except as a rebel.

This view, however, has permeated Christianity, I might add, right up to the present day. I myself was a victim of it while I was in the seminary and had to think my way out of it, once I found that the "lesser state of life" of being a layman was where I was being called to. We were always told, "Choosing the lesser good isn't a sin, of course; but you're rejecting grace (God's free gift offered to you); and if you reject grace, don't expect him to do anything more for you; you've taken the first step on the slippery slope." Fortunately, God is not so petty as to be peeved if we reject grace, and then not offer more to us when we want or need it; that "argument" is

⁶⁵Something like this has to be true, I think, for Jesus to be consistent. One of his "counsels of perfection" is that it is a blessing to make yourself a eunuch (i.e. to be celibate) for the sake of the Kingdom. But that, clearly, means not fulfilling oneself sexually. How could he then both condemn those who don'r fulfill all aspects of themselves and in the next breath tell them that they will be better off if in this (natural) respect they don't? For those who cavil at this, let me say that there is nothing wrong or inconsistent in *not* acting on one's sexual impulses, since the sexual faculty is a *faculty*, which means that it is a means by which we can act *or not act*. One might argue that *never* exercising the faculty would be tantamount to in practice denying that you had it; but that applies to the whole series of acts, not an individual one, and that is an *effect* of never in *any* individual case exercising it. But, using the Principle of the Double Effect, one can choose the series, not for this evil effect, but for the benefit that self-control and celibacy bring as other side-effects (or to show that one loves the Lord enough to sacrifice this aspect of oneself for Him).

making God think our thoughts.

It made sense in the usual philosophical interpretation of Christianity, where "the good" was thought of as something objective, and where "true freedom" was to be a slave of God and his "plan" which was "the best life for us"; but I think that that view, with its notion of a kind of natural Beatific Vision as our "true end" has all sorts of flaws in it, many of which I have pointed out in other places (notably in Chapter 4 of Section 3 of the second part).

I think it is much more consistent with a Being who has caused free finite beings to exist that he give them leeway to exercise their freedom, and that the finiteness should consist in limits within which there is no punishment for choosing one life style over another. In other words, the basic human limits, where the goal actually contradicts itself in one way or another, are the limits for our freedom that make it imperative under pain of eternal frustration to restrict ourselves; and our talents do not carry this penalty if we choose not to develop them. Why else would a person have *faculties* if he could not either exercise them or not as he saw fit? That's what a faculty *means*. And talents, in the last analysis, are physical or mental faculties.

But then what is their function? These talents don't define our goal or our happiness; but they do define what our enjoyment is, to some extent. That is, if you choose as a goal an act your talents incline you towards, then your happiness and your enjoyment coincide. You will find yourself doing what you are spontaneously attracted to and what you can spontaneously do well; and if you make this your goal and work at developing the talent, then you will probably even in this life be able to do the act very well.

On the other hand, if you choose as your goal an act that is not something you have a spontaneous inclination toward and to which your body is not well suited by its genetic makeup, you will be able to *do* it, perhaps, but not as well as someone who is more talented

than you; and you probably won't *enjoy* doing it as much as he.

But this is not a reason why you should *not* adopt such a goal. If it interests you, why should you be prevented from doing it, and doing it forever, even though your interest comes from a reasoning process rather than an emotional inclination toward the act, and even though you'll never be able in this life to develop the degree of skill at it that others gifted in that direction might have? I think of Muggsy Bogues, a basketball player who is, I think, five feet four inches tall, and who can run between the legs of giants like Magic Johnson. Obviously, what he does to make himself a professional basketball player requires much more concentration and hard work than someone like Kareem Jabaar has to devote to playing excellently; and he will never attain the heights that people like Jabaar have reached—in this life. But if he wants to be a basketball player, why shouldn't he try? More power to him.

If you choose such a goal, you will be happy, and eternally happy, but your happiness will not contain as much enjoyment as it would have if you had followed a goal that your talents suited you to better. But even here, there are two qualifications that need to be taken into account: First, there is what I suspect is a satisfaction Muggsy Bogues has that the tall players can't imagine: the emotional uplift that comes from overcoming apparently insuperable odds. The very fact that the deck is stacked against you can make playing the game that much more emotionally satisfying, if you're the kind of person whose talents incline him to meeting challenges.

Secondly, there is such a thing as cultivating a taste. Our drives are built-in, but they are flexible; and as you can see from eating, the primary meaning of "taste," what spontaneously tastes bad can be brought to taste pleasant if you keep eating the olives or the caviar; and afterwards these things are thought of as far superior in taste to burgers and fries.

Similarly, even a taste for philosophy or literature or music can be

cultivated (believe it or not); and the person who has read enough Dickens, for instance, goes back to Agatha Christie and can't stand her novels; or a person who has seen enough Shakespeare, Moli«ere, Aeschylus, and Eugene O'Neill is positively repelled by *The Simpsons* on television.

So obviously the inclinations and physical abilities we were born with are not commands telling us what we must do with our lives. Then what are they?

Like all our emotions, they provide information, which we should take into account, but don't go beyond this. They are a call toward a life style which will be spontaneously enjoyable, and which we can probably do well with some ease while we live on this changing planet. But they neither determine us, nor are intended to coerce us, as if they were a "law of our nature." The information they give is to be weighed with the other information we have about what we want to be; it is just that, if we can't make up our minds, then our talents can help us pick a direction in life.

In this sense, our Creator did not leave us in a position where we would be totally bewildered by the alternatives offered us, with no way to choose among them, since in themselves all are equally neutral with respect to "good" and "bad." We aren't then, like the proverbial donkey between equally attractive bales of hay, who starved. Some of the bales are more attractive than others, not because of their intrinsic goodness, but because of our makeup.

A *vocation* is an inclination toward something that does not carry an imperative along with it.

So it is quite possible to ignore a vocation, and do something else; it is just something given to you to help you decide what you want to be in case you need its help. And it *is* true that if you choose as

your goal something you spontaneously enjoy doing, then you will be eternally happy and eternally enjoy yourself as much as you are capable of.

Following your vocation, by the way, might mean choosing a less lofty form of human life. Suppose a person is capable of doing nuclear physics if he works at it, but he would be the Muggsy Bogues of nuclear physics; whereas he likes working with his hands and tinkering with automobiles; and he just has a feel for them. He would *enjoy* life more as an auto mechanic than as a nuclear physicist, in spite of the fact that he would be living a higher type (because more intellectual) of human life as a nuclear physicist.

So which should he do? The point is that *neither* one is what he *should* do. If he chooses to live a higher kind of life, then he is perfectly free to make this his goal, and he will be eternally happy as a nuclear physicist; if he chooses to be the mechanic, he will not have developed his mind to its full capacity, but he will have fun here and fun eternally hereafter in his eternal lower form of existence.

Note that if he picks the life of the auto mechanic and *rejects* the other one, then the fulfillment implied in the rejected life is *forever not available to him*; that life is an *ideal*, not a goal, and will not be fulfilled, because he rejected it as his "true self." And, of course, if he picks the life of the nuclear physicist, he will not gain the fulfillment he could have had as an auto mechanic, for the same reason.

But it isn't really as black-and-white as all that. You can pick a life style as your *main* goal, but keep other goals as hobbies and avocations, which you *also* pursue at odd moments. There would be nothing wrong with studying nuclear physics and fixing cars in your free hours; and even after you became the nuclear physicist, you could still keep up your interest in fixing cars—and in fishing and playing basketball and reading novels and poetry, and singing, and all sorts of other things. Your goal can be as simple or as complex as you want to make it; the only requirement is that you *choose* to pursue

it—that you *do* something in the direction of the goal, and don't just leave it there as an ideal to sigh about and say, "If only things were different; how I'd like to fly an airplane!"

The person who has many goals will fulfill them all as one complex goal in his eternal life; if he keeps them as mere ideals, they are lost once he dies.

Let me illustrate this with a Blairian parable. There was a minor official in an office, second to the person who had charge over the ten people in his little area. As it happened, this man had a desk which looked through the door of the president's office, and he could see the huge polished desk, the recliner chair behind it, and the closet containing the golf clubs. And the official used to say to himself, "What I wouldn't give to be president, and be able to take the afternoon off playing golf and clinching a deal while I was at it!"

It came to pass one day that the head of his group was moved upstairs, and the vice president in charge of personnel offered him the job. He suddenly grew afraid, and said, "Could I have the weekend to think it over?" and the time was granted.

During that time, he said to himself, "How many times have I saved Jones from messing things up by pointing out things he didn't know that would have made him make the wrong decision? But who is going to do this for me? And if I make the wrong decision, then I might lose my job. Where I am, nobody notices me, and I'm safe."

So he told the vice president, "Really, I think that Smith would do a better job for the company than I would; all the people like him, and I'd be here to help him along if he needed it." And the vice president told him, "If you don't want the job, then we certainly wouldn't want you in it. We'll put Smith there, and you can stay where you are."

And from then on, the man kept his job, every day looking into the president's office and saying, "What I wouldn't give to be president!"

And it came to pass that he died, and happily stayed a minor clerk for ever and ever and ever.

The moral of the story is, of course, that you get what you *choose*, not what you would like. And since he *rejected* a job that had only minuscule responsibility connected with it, he would kick and scream and give anything *not* to have the president's job, which is nothing *but* responsibility, and where every moment he has to make a decision that affects not only his job but the whole company's solvency.

And there is the beauty and the horror of life. You get what you choose to have; no more, and no less. Think of the implications of it. It is in this life you have to choose; and those choices—all of them—have eternal consequences. You can be whatever you choose to be; but you have to *choose* to be it; and you will be nothing but what you choose to be, even if, like the clerk, what you choose is to be little more than an eternal statistic.

Don't expect your Master to shower blessings on you because you have been moral your whole life long. All being moral means is that you haven't tried positively to contradict yourself; it doesn't mean that you have made anything of yourself; you have raised yourself up to zero in humanity if all you have done is obeyed the law. "And so," says Jesus, "when you have obeyed the whole law, call yourselves useless slaves."

And what you are to make of yourself beyond this is totally up to you. You can't blame others' influence, because you can choose to listen to them or you can choose to go off on your own; your responsibility for your eternal self is *total*; you have no one to praise or blame for your eternal self but this temporal self you are here and now. No one can make your choices for you but you; and you do it with complete control, not only of the choice, but of the reasons for which you make the choice.

Notice that if you make an immoral choice and afterwards

recognize your folly and repent, this makes no difference to your eternal life, except to add a frustration on top of the frustration you gave yourself. Under Conclusion 7 of the preceding section, I showed that "correcting" a concept did not mean losing the old one, but simply adding a new one and attaching the old word to it; spiritual acts cannot be erased once made, by anything the person himself can do. Hence, if you choose to steal, and after having stolen, you repent and choose not to have chosen, you no more erase the previous choice by that repentance than you remove the act by choosing not to have done it. In your eternal life after death, then, there is the goal of having as your own what does not belong to you and the goal of not having this as a goal in your life, knowing that it is a goal in your life.

Of course, it is possible for the person who repents to perform acts that minimize the damaging effects of what he has *done*, or even turn the damage into benefit for the people harmed by it. But there is no way to undo the eternal damage he has done to himself; once he has made an immoral choice, he is damned: eternally frustrated.

Philosophically, this is as far as we can go. Though God *could*, by an act beyond our powers, erase this choice we are now sorry for as an operative choice involving a goal in our eternal life, there is no reason why he *would* do such a thing. We did not "make a mistake" when we made the immoral choice, because we knew what we were doing and deliberately chose it; the "mistake" is only from hindsight. He made us free to create ourselves eternally by our choices; why should he contradict what we are just because we are sorry that *we* tried to contradict what we are?⁶⁶ So it looks as if we are stuck with

⁶⁶How does Christianity, the Redemption, and the Beatific Vision fit into all of this? First of all, what the Redemption does is make the following possible: If you choose to subordinate yourself to God and are willing to become a different person (the one

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the eternal consequences of our choices; and the only thing we can

without the sin's goal)—if you "deny yourself"—then God will miraculously erase this act as a goal in your eternal life. This is *Christian* repentance, or "change of attitude"; and it is initiated, really, by God's gift allowing you to believe that it will "work" and giving you the strength to repudiate your very being. As St. Paul points out in *Galatians, First Corinthians*, and *Romans*, obeying the Law is fine if you have never sinned; but once you have sinned, nothing *you* can do can undo your choice or make you virtuous again; it has to be done *for* you (this is what is behind the "faith not works" controversy).

So it is possible for the goal to be erased as a goal in your eternal life, even though the effects it has had on you here (and in your eternal reality as modified by what you did to yourself through it) will be with you forever. For instance, if you choose to cut your arm off, you will presumably be one-armed; but you will not forever be trying to be a person who can pick things up who can't pick things up. Maybe some of the consequences of the choice will be erased; I don't know; but at least, the Redemption erases the eternal frustration in the choice.

What the Beatific Vision does is add to our finite consciousness an expansion of our consciousness beyond itself to infinite consciousness. Any act of finite consciousness "finitizes itself" to this individual act, implying that in itself it is beyond this act, and could be greater. God lifts this abstraction into actuality, and you actually become God, knowing Being in all of its fullness, and becoming identical with the Infinite Being.

But of course, this act of infinite consciousness is only one "dimension" of your eternal consciousness, the rest of which is the set of finite acts of consciousness which constitutes your conscious life, and which I have been discussing. Hence, you are not absorbed into God in such a way that you lose your individuality; God becomes a "dimension" of your individual consciousness (the Infinite is "part" of your finite consciousness), and you become a "dimension" in a special way of God's consciousness. This is, of course, totally beyond our power as finite; it is just that the spirituality of our finiteness is such that to be *given* this as a gift is not a contradiction.

So the Beatific Vision takes nothing away from what I have been saying above; as far as the finite "dimensions" of your consciousness are concerned, you will be just what you have chosen to be, no more and no less.

Of course, if a person chooses not to take advantage of these gifts, this does not disappoint God, any more than he is disappointed by the person's preferring eternal frustration to accepting his limits and being happy (because that is really what the alternatives are).

do if we have ever been immoral is not make our eternity worse by adding more self-contradictory aspects to this complex goal of ours.

But there is a hint that things might not be this bleak, but before I get into it and the "fallenness" our our nature, let me by way of a kind of appendix say something about limitations on our humanity which are important, but which do not necessarily restrict our choices to any significant extent. I am speaking of sexual and racial differences.

In the traditional Scholastic system, such differences would have to be attributed to "matter" (which corresponds to the quantity of the unifying energy), because, after Aristotle, *all* differences within a "species" are due to "matter" and individuality.⁶⁷ But this would mean that any differences of any sub-class of human beings would necessarily be *quantitative*, such that one class was as a whole "greater" than the other, and so ontologically superior to it.⁶⁸

But I think, as I mentioned under Conclusion 1 of Section 1 of the second part, that this distinction of "form" and immediately "quantity" is too rigid, and that there are formal differences below the level of the species; and here is where sexual and racial differences

⁶⁷Plato's philosophy would not demand this, since Plato held that Aspects can "share" in other Aspects, and so the one that shares the other has "less" of it than the other in its "pure" state. For instance, "humanity-itself" is "good," but it is not identical with "goodness-itself," and so has "less" of it in some sense (but not really a quantitative one).

⁶⁸Plato clearly thinks that men are "greater than" women, by the way, in spite of the fact that his philosophy wouldn't logically demand this. In his reincarnationist view, morally inferior souls get reembodied into physically inferior bodies, and the first reincarnation of a bad man's soul is into a woman's body.

come in. Hence, it seems to me that these differences, while limitations on our humanity, are *qualitative* rather than quantitative, and questions of which sex or race is "superior" are otiose. We are different, that is all.

In fact, if you don't recognize a qualitative difference between sexes, say, and try to say that one sex is "the same sort of thing as" the other, then you are for practical purposes forced into recognizing quantitative differences; and this is the dilemma that the feminists have got themselves into: if women are the same as men, they are inferior to men.

This admission of inferiority is evidenced by the demand for different standards for men and women in certain occupations, because if women are expected to qualify on the standards previously set for men, they can't make it. Thus, for instance, the standard for firefighters that one be able to take a 150 pound weight on one's shoulders and run up two flights of stairs is not something that women, by and large, can do; hence, the standard has been lowered so that women can qualify for the job. This is, of course, a recognition that women's bodies are on average weaker than men's; but the attempt is being made to create standards that are applicable to both men and women, so that these differences in degree of strength can be masked.

The point is that if women are to compete with men on men's terms, that is, as if they were men, they will have difficulty in measuring up; just as if men were to compete with women as if they were women, they would have difficulty measuring up. It does no good trying to pretend that sexual difference are not there, or that if they are, they affect only reproduction and nothing else.

The same goes for racial differences, though to a lesser extent. If white people were to compete with Blacks in enduring the sun, then they would collapse, whereas if Blacks had to compete with whites in getting Vitamin D only from sunlight, they would be found deficient

in the vitamin.

"Well, so what?" you say. "What real difference do these petty things make in social roles? Why should women or Blacks be assigned only certain tasks, and men and Whites have their pick of all the rest?" Generally speaking, sexual and racial differences don't matter in qualification for an occupation, and therefore should not be taken into account in admitting people to it.

But that is not the point. The fact that differences are not *relevant* for certain things should not lead anyone who recognizes this to say that *there are no differences*. This is to fly in the teeth of the facts, and to pretend that things are not the way they are.

So let us look at the facts. First of all, sexual and racial differences do restrict our activity to being only some subset of human activities. A woman cannot impregnate anyone (which is a human activity), and a man cannot conceive a child (which is also a human activity). A White person cannot stand as much sun as a Black, and a Black cannot get as much Vitamin D from the sun as a White. Whether these activites are important or not is not the issue; the issue is that the restrictions exist and have nothing to do with "social conditioning."

But since these differences apply to groups of people as a whole, then they are fundamentally qualitative rather than quantitative. When there are differences in degree between sexes or races (such as the average greater weakness of women than men), there is such enormous variation in this characteristic from individual to individual that it is the individual degree that matters, not the "average" of the subclass. There are women in the gym where I work out that I would not like to compete with in a contest of strength.

Hence, there is reason for saying that women are a different *kind* of human being from men, and that Blacks or Orientals are different *kinds* of human beings from Whites. And this allows us to approach the subject rationally. No one of the groups is "superior" or

"inferior" to the other; they are different, as red is different from blue or sound is different from weight. That is the first point to keep in mind.

The second point is that these differences permeate the whole person, both physical and mental. A woman is first and foremost a unit, and so everything about her is shot through with her femininity; she has a different skeletal structure, different musculature, different metabolism, a differently operating neural system, and consequently different ways of spontaneously organizing the data in her brain: a differently functioning instinct. Her ability to understand and choose is in itself the same as a man's, of course, because it belongs to the spirit as such, and has no restrictions on it; but the data she sees relations among will be different from those of men, insofar as her instinct connects things in a different way. A woman is not very different from a man, but she is wholly different. The same goes for racial differences. A Black person is not just a white person with a deep tan; the hair is different, the musculature is different, and everything about a Black person is infused with his blackness.

But if we recognize that these differences do not imply superiority or inferiority, then there is no reason why we can't recognize them. The fact, for instance, that women think differently from men (for instance, apparently women are more practical and less prone to build vast theoretical structures like this book) has no invidious connotations; it is just that the two approaches to problem solving, say, would be different. That they *are* different is an asset, not a liability; perhaps certain types of problems can better be solved with a feminine approach than a masculine, and men are floundering now over them because they think that the feminine approach is folly, and their way is "better," even though they can't make head or tail of what they are doing.

Hence, instead of trying to *mask* sexual or racial differences, people should be trying to recognize what they are and use them as

a kind of vocation. A woman accountant, approaching things the way men do, probably is at a disadvantage, because in accounting if anywhere, the system is one of these great theoretical castles in the air, with all kinds of accounts that exist for no other reason than to have a place to put the balancing number. But the purpose of accounting is to know accurately and easily what happened to the money, whom one owes and who owes one, and the inventory. It might be that a woman approaching this problem from a feminine perspective could devise a system which would be clearer and more honest, and one which women would be comfortable with.

I am not sure, but I am willing to bet, that the style of basketball playing has changed since Blacks began to dominate the courts; I do know that when I was a child, the slam dunk was unheard of. Blacks in all probability have certain ways of moving that are more comfortable to them than Whites, and as the Black players of talent became numerous enough, coaches would have had sense enough not to try to wrench their natural style into an artificial "right" form, however comfortable that may have been to others. And it is reasonable to say that, since the Black style seems to suit the game better, Whites are no longer as able to compete.

If there is any truth in this (and I have no idea how much there is), then it is conceivable that in other areas where Blacks have not done well, some of this might be due, not to inferiority, but to "style"; the few Blacks in the field might have to do things in a White person's way, where they are at a disadvantage, while if there were enough of them in the field, then the outstanding ones would begin to show that an approach that they as Blacks find more congenial would allow them to do as well as or better than their White counterparts.

Let me pull this together as a formal conclusion:

Conclusion 9: Sexual and racial differences do restrict possi-

bilities for activity, but in not many significant ways; but since the subform permeates the whole person, it creates a vocation toward a certain style of action or approach to action.

What I am saying is that the solution to the sexual and racial problems is not to pretend that there are no differences, but to think of the differences in terms of "style" and approach, rather than in terms of greater or less ability or of roles. Each individual then would be able to recognize his sex and race and rejoice in its assets, rather than compare himself with others outside his group and wonder whether that meant he was better or worse. Women would no longer have to prove that they were "just as good as men" and masculinize themselves in the attempt; Blacks would be able to think reasonably that "Black is beautiful," and not use it as a slogan everyone says because no one believes it.

And then each individual would be able to look at his own individual vocation and talents and see where they lead him, and pursue this as his goal, rather than blaming racism or sexism for forcing roles upon him. And note that if my theory is true, that *having* the goal is what is important, this would apply to people even in my own age, where it is still difficult for women and Blacks to have any realistic prospect of attaining certain goals in this life.

If my theory is true, the tragedy of being born in the ghetto environment of poverty is not so much that opportunity is not there; it is that *the fact that* opportunity is not there induces people *not to choose* what they see no realistic prospect of attaining. The young Black man who would like to be a doctor, and who realizes that his education has been dismal and that there is no way he can get into medical school, will in all probability not choose to be a doctor and not fight the odds. When he sees the pimp come by in his BMW, and his drug-pushing companions wearing chains of real gold and

hundred-dollar high tops, his choice is apt to be in those directions, because success looks possible.

It is in this sense that ghetto children need "role models." They have to have the idea that life styles are in principle open to them, or they won't in practice be able to choose those life styles; and if they don't choose them, however attractive they might seem in the abstract, then they give them up forever.

And if my theory is true, if they *do* choose them, then even if they fail in this life because of disadvantages they had no control over, they will attain them forever, and every tear will be wiped away.

Chapter 5

Fallenness

ow then, I mentioned just before discussing racial and sexual differences that there is no reason why God would erase an immoral choice once made, and so save us from eternal frustration; and the reasoning I gave seemed to indicate that it would contradict God as Creator of a free person to do so.

There is, however, as I said, a hint that it might not be inconsistent for God to do something like this (though there is still no evidence philosophically available that would say that he *does* do it, which is why the discussion of Redemption was put into a footnote). We are not, when we make an immoral choice, in the completely informed condition which a person taking eternal consequences should really be expected to be in. It is only if you made a *fully* informed choice that you would have no reason afterwards to change your mind; because in that case you would have foreseen all the circumstances that would make your choice different, and rejected them. If the choice were perfectly informed, it would be obvious then that repentance was an act of pure capriciousness, and an abuse of the freedom.

But to see what this entails and why Redemption would not contradict our nature (and so God's in removing choices we repent having made) we have to bring in the evidence that indicates that the human being is not what we would expect him to be as an embodied

spirit.

What you would predict of the life of an immortal spirit whose nature it is to organize a body is this:

First of all, such a being would never die. It makes no sense for a being whose nature it is to organize a body to live for practical purposes its whole life in an unnatural condition, unable to perform many of the acts it can by nature perform, because they require a body. And, as the struggle against death shows, death is clearly not a "welcome release" for the spirit, as if the bodily life were the unnatural one, and the truncated eternal life were unnatural; death means giving up, not gaining, as far as human nature is concerned.

Granted, in life as we now experience it, the after-death experience of total consciousness is not possible, because consciousness depends on the brain, which cannot have all its nerves active at once, since it doesn't have that much energy. Further, it seems that our bodies, by their very nature, *must* die and decay; and so eternal bodily life seems impossible.

But it isn't really. All quantified activity is is *limited* activity; it does not imply change in its essence. True, a being can change only *if* it is limited; but the converse is not necessarily true; it does not follow that if a being is limited, it must be changeable. If, in fact, a being involving energy is insulated from being able to absorb energy from outside, then once it reaches equilibrium, it will *not* ever change, even though it is still limited.

Further, if we look at what life does to a body, we notice that it makes it act in a direction counter to that body's natural tendency as a body. Even in the lowest forms of life, the unifying energy raises the body above its ground-state equilibrium and keeps it there, in spite of the body's tendency as a body to "run down." And the ability to move about and observe danger and nourishment give the sensitive body that much more ability to counter its tendency as a body toward ground-state equilibrium.

The unifying energy, then, has greater and greater control over the bodiliness of the body as one goes higher on the scale of life, and greater and greater protection against attack from unwanted energy which would tend to destroy it. It is certainly thinkable, therefore, that when the unifying energy had reached the level of actually being a spirit, it would have the ability after a time *completely to isolate itself and its energy*, neither losing nor gaining any from this time onward, and simply being a body in eternal equilibrium.

The *second* thing one could expect of an embodied spirit, whose choices determine the whole being is that *it would never be out of control of itself*. This has two aspects, internal and external.

The internal aspect of self-control also has two aspects. In the first place, you would predict that the emotions would never have any power to do more than what they normally do even now: provide information about what the relation is between the objects sensed and the body's condition—which understanding would then take into account and use as facts to influence the choice in the light of the goals set for the whole person, not just the aspect the emotion is reporting. And once the emotion provided its information, *it could be shut off*, if the action chosen were not what it was leading to, so there wouldn't be a conflict within the person.

After all, the conflict between where the emotions tend and where the choice tends is a conflict within consciousness itself; and it makes no sense that consciousness, which is one single act, would be divided against itself. If the spirit is identical with its energy-"dimension," and is by nature its controller, it makes no sense for the spirit to be controlled by what it controls. And if the spirit is infinitely beyond any amount of energy, how could what we said in the preceding section happen, when we remarked that in fact sometimes there is so much energy in a drive that the spirit is not able to get it out of that automatic response to the stimulus, and we do not do what we choose to do? And that spirit does by nature

control energy is obvious from the fact that it is only rarely that drives or habits make a person unable to carry out his choices.

So if a human being were in the condition demanded by his nature as an embodied spirit, he would always have control over his emotions and his behavior; and this would be "easy"; there would be no conflict, no struggle. The body would not be the complete *slave* of the spirit; it would be *the same being as* the spirit, and its "instrument," as Aristotle would say. Can the hammer refuse the carpenter or fight against him?

Secondly, the emotions could never *block information* from the person making the choice, so that his choice was not based on all the information available to him. Clearly, if the choice is to govern the body, which is to be an eternal body, then the person who is to make eternally irrevocable decisions about himself would be expected to have *all relevant information available to him* when he makes the choice; otherwise, he could unwittingly damage himself forever and ever.

This would presumably mean not only that the emotions would not block out information or create illusions, but that the person would be able to find out all the relevant facts about his choice, even those he had not previously learned. Emotions, after all, only deal with information that has been stored in the brain; they do not affect information we have never yet encountered. But this information can be just as vital as information we already learned but might forget at the crucial moment. Hence, if human choice is not to be self-determination involving the gratuitous cruelty of bringing disaster upon oneself because of invincible ignorance, then access to all relevant information must be given to the being.

This does not, of course, imply that the information has to be *known* by the person as he makes his choice; it just has to be readily *available*, so that if he doesn't have it, he has *chosen* to remain ignorant of it, and to take the temporal and eternal consequences of

his ignorance. To force knowledge on a person who refuses it would be a violation of his freedom. But there shouldn't be any great struggle in acquiring the knowledge, if the person is to be really in control of his destiny, for the same reason that there shouldn't be any struggle with the emotions over carrying out the choice once made.

As to the external implications of self-determination and control, the human being would not be able to be harmed against his will, if he were in the condition you would predict from his being an embodied spirit. This actually is a kind of corollary of the previous points. A spirit should have such control over its energy-"dimension" that it could defend itself against any unwanted energy, even while it was changing, and would only absorb that energy if it led to goals that the being chose for itself.

We do this to a certain extent even now, just as we control our emotions to a certain extent. We obviously move away from danger and struggle against attacks. And, for instance, we have melanin in our skin, which protects our bodies (by tanning them) from ultraviolet light as the exposure to it becomes stronger and more prolonged. We grow callouses on our hands, hardening them against constant wear which would normally tear them apart; and so on. There is obviously a tendency of the body to adapt itself to energy that it is constantly exposed to, and to neutralize its harmful effects. All this prediction says it that the protection is not as great as you would expect from a body that was going to exist as a body eternally, and whose eternal existence depended on *choice* rather than the action-reaction sort of thing you find in inanimate bodies.

This is not to say that the body could not be harmed at all. If a person did not care whether or not harm would come to him from a certain act, and wanted the act anyway, then (even if it was harmless in itself and only harmful in its effects), he would have accepted the possible harmful effects, and presumably then they

would happen. Again, this is something that happens now. We don't see anything wrong in a person's being harmed if he "brought it on himself," knowingly doing what was risky.

It is because we realize that human beings "really are" in this happy condition of not being able to be harmed unless they at least implicitly will it that it is hard for us to sympathize with the agonies of an alcoholic or drug addict. "Well," we say, "He knew that this is what happens if you take this stuff. What can he expect?"

But of course as we now exist, first of all, how much he knew when he stepped on that slippery slope is open to question, as is how much information that he would otherwise have known was being blocked out by his emotions at the time. Secondly, we can all be harmed against our wills by doing something perfectly innocent, that we have no reason to believe will be harmful; and so it is *not* true that "where there's smoke there's fire." If something bad happens to us as we now exist, it is *not* true that we somehow or other brought it upon ourselves.

But if we are to be eternal bodies who determine for ourselves what our eternal existence is to be, then obviously, being crippled or otherwise harmed against our wills contradicts our nature.

A corollary of this is that we would never grow old, and gradually lose our powers. We could develop and improve our skills; but once we reached the level of expertise we chose, then we would never lose this; and so eventually, we would be at the peak of our form in every aspect of our lives that we chose to develop.

Once there, presumably, since any change would be for the worse, we would then make the final choice and close off our energy, and stop changing and release our consciousness from dependency on which nerves are active in the brain, so that we would be our complete embodied selves forever and ever and ever.

Hence, the life you would expect of a "true" human being would look like this:

In the early part of life, he would live much as we now live, learning about what it is to be human from observing others around him, and discovering his own talents. The only real difference would be that he would not be able to be harmed against his will, and would never have to struggle to overcome temptations. The child would have to learn that he could be harmed, but only if he were willing to be harmed, and would have to be warned against those who would persuade him to do what is harmful. But this knowledge would be efficacious, so that he could not be duped into being harmed by a clever adult; even then, he would have to *will* it, at least by implication.

In the transitional, adolescent, phase of his life, he would make choices about the basic self he wanted to be (always modifiable by addition as long as he remained as changing), and would take the steps leading himself to his goal, knowing more or less how long it would take. The goals would be guaranteed, but it might take thousands of years to fulfill them, depending on the laws of nature.

There would, of course, be no struggle against injustice and inhumane treatment, because no human being would be able to harm another unless the other (with full knowledge) foresaw and accepted the possible harm.

When, finally, the person had fully developed himself, he would stop changing; and though his effect on the world would not necessarily cease if he wanted it to continue, the world could not any longer affect him. The reason for the first clause is that the cause is not affected by its being a cause; and even though a person might want (like Socrates, for instance) to have an effect on future generations, this would not add to *his own* development, and so there would be no reason for his staying in the changing world to accomplish this goal. Presumably in this state of absolute equilibrium, he would know all the persons he chose to be interested in, and be aware of their fulfillment also. This loving knowledge is

not an incursion of their energy upon him, but is a "dimension" of his consciousness.

Well, there we are. That is what our life ought to look like. And be honest, reader; isn't that the kind of life you dream of, and only think isn't "realistic"? To be in total control of yourself and your world, so that the only way you can be thwarted or frustrated is by deliberately choosing to be so, with full knowledge of what you are doing to yourself—what more could you ask? And never to have to die, never to have to grow old and die by inches, never have to contend with handicaps, never to deteriorate from the pinnacle of your powers, never to have to worry about others taking advantage of you as they pursued their own happiness; what is there that you could desire that you wouldn't have?

"But there's no challenge to it," you might say. Oh, yes there would be. If the goal were very lofty it might be very difficult to achieve; but you would know that it would take a long time, but that you would in fact be able to achieve it—and you would in fact achieve it. Those who didn't want to face the challenge of working centuries for the goal could set their goals lower; but the point is that challenges would be there. All that would be missing is the possibility that you would not be able to win through in the end.

And even that would be there, of course, if you chose an impossible goal. Immorality would still be an option; and, of course, in this type of life it would be the *only* option which would lead to the frustration of eternal striving without fulfillment. And there would be those who would choose it, just as there are devils among the angels. Lessing is supposed to have said, "If I were offered all knowledge on the one hand and the eternal quest for knowledge without ever finding it on the other, I would take the second."

But why do we dream like this? This is not *our* life; it's what our life *should* be, perhaps, but it's not what our life is.

Conclusion 10: Human beings are not in their natural condition.

But then what happened? Why are we in this state where we have control over our emotions but they control us at times; where we base our choices on information, and even the information we have is not available to us; where accidents no one is responsible for (least of all ourselves) ruin our whole lives; where even if we succeed, we grow old and lose our powers and gradually have to watch ourselves rot before our very eyes; and finally, where our very being tears itself in two, and we live on as memory and only conscious fulfillment, while the thing that used to be our whole self crumbles to dust?

Given that contradictions don't happen, there has to be a cause for this effect.

In this connection, it is interesting to note that I don't know of any philosopher who has not held that in some respect we are not in a "natural" condition as we live now. Of course, there is a vast difference in the philosophers' ideas of what is wrong with out lives at the moment, and what the explanation is of this discrepancy between where we are and where their theories predict we should be. Some think that there was a "golden age" that we have fallen from, like the idyllic "noble savage" of Rousseau, making civilization the culprit. Some think that the ideal condition is just something that mankind as a whole hasn't developed to yet, like the "classless society" of Marx. Some think that it is just our perversity that got us here, and if we would all return to reason, everything would be fine. And so on. But all recognize that things are not as reason would expect them to be.

It seems to me, based on my analysis above, that *circumstances in* the world can't account for the radical discrepancies in the very makeup of the human being that exist. No new institution is going

to keep us from dying or growing old, or having our emotions get out of control, even if it were to prevent any human being from taking unjust advantage over another.

My explanation is actually very close to the "Adam" legend of the Bible, and "original sin." Since human beings are essentially different from animals, and have an essentially higher degree of control of themselves because they are embodied spirits, then it is probable that the first body that had a soul like this (i.e. the first body which in the course of evolution could support one) was in fact as I have described the human being: capable of sinning, but in perfect control of himself ("And [he was] naked, to wit, and not ashamed.") and with all relevant information available to him as to the consequences of his choices; one who would never die, never grow old, and so on.

My hypothesis is that this new life form was uniquely given the choice of determining the human genetic structure, within the limits that it had to be a body, that it had to be capable of supporting a spiritual soul (and so probably mammalian), and so on. All future generations of human beings would inherit the body, with its genetic limits, that this first human chose from within these parameters; and once he chose the body, it would be fixed, not only for himself but all his descendants.

In other words, the first parent had the privilege of choosing what the species would be like: its basic physical characteristics, much as each of us can choose what we will be like *within* the basic characteristics the first parent chose for all of us. Personally, as far as human appearance and so on is concerned, I think he did a very good job of designing the human body. I also think that this choice of the species was given to one person only, and the "blame the woman" part of the Bible's legend is part of the (fallen) human author's interpretation of the basic truth he understood (either by direct revelation or by a reflection analogous to mine). Incidentally, the first human bodies were undoubtedly Black, if the human race

originated in Africa, as the fossil evidence seems to indicate.

In any case, having such control over himself, he deliberately chose to have *total* control over himself, and refused to accept the restrictions on his choice that he had been given.

And the Master of this embodied spirit then punished him for his sin by saying, "You have chosen not to accept the limits I have imposed on you. You will now learn what this refusal means; your own matter will refuse to accept the directions you enjoin on it, and will behave as if it were an animal; and you will be in constant conflict with yourself; and you will find yourself the prey of forces of nature, over which you will no longer have control. And ultimately your body will totally reject you, and you will die, remaining only part of yourself forever and ever. And you will pass on this rebellion to your descendants."

And thus it was that we are in the unnatural condition we are now in. Our nature has not been ruined, because we still *have* basic control over ourself; but it is seriously wounded, and its wounds give us a propensity in our blindness to bring harm on ourselves by seeking what is only abstractly beneficial.

But here is the hint at redemption I mentioned. Given that we now *are* in this state because of the consequences of the initial rebellion of our first parent, our sins can no longer be like his, with full knowledge of all the facts relevant to our choice and full control.

⁶⁹I happen also to think (for various reasons) that the whole world under this human's control was "retroactively infected" with his immoral choice because of the eternity of God, who made it subject to human control. And therefore, destruction, pain, and so on entered our world—though before humans evolved—based on the choice the first human made. I also believe that Jesus's mission was to restore the world and us (as I will expand on in the next footnote) to where we would have been if the "original sin" had not been made—if we accepted him as King. That is, the lion would literally have lain down with the lamb, and so on.

^{5:} Fallenness

We are torn by legitimate fears of at least temporal disaster, and we do not have the eternal life after death clearly before our eyes; so that we make choices not *knowing fully* all the consequences of our choice (even I have my doubts about the afterlife, particularly in the midst of temptation), and dragged hither and yon by the winds of the emotions within us.

Hence, unlike the first parent, our whole personality is not wrapped up in any immoral or sinful choice we make; and therefore it is possible for us to awaken to all the facts after it has been done and to regret and repent it without doing violence to *the nature we actually have in this fallen condition*.

This means that it would *not* be inconsistent for God to rescue us from the damage that we have only half-wittingly done to ourselves, and not to hold us eternally accountable for an eternity which we only vaguely chose—if, having repented, we choose to get ourselves out of this sorry condition.

Supposing him to do this, it would also not be inconsistent for him to re-embody us some time after our death, with a body like the one we would have had if we were in the natural condition I spoke of; so that we could live eternally as our nature obviously meant us to live. Since the fallenness of our nature is not the fault of each of us, and we are only responsible, really, for the effects of our own choices, then it would make sense that the *eternal* consequences of the fallenness as such not be irrevocable for those who did not will them, at least implicitly.⁷⁰ Of course, we have no philosophical

⁷⁰And this is the Redemption, of course, with its offering of a bodily resurrection and an eternal life as an unchanging body.

Actually, if you read John's *Report of the Good News* carefully, what Jesus seems constantly to be offering people is *that we will not die* if we accept him. He says to Martha, "One who believes in me [referring to Lazarus, whom he is going to bring back to life] will be alive even if he is dead, and anyone who is alive and believes in me

evidence that God has actually *done* this; all I am saying here is that it would not be a contradiction if God were to do it.

will not die ever. Do you believe this?" There are other passages like this also, which don't seem to indicate a resurrection after death, but not dying in the first place.

And so the way I read Scripture, it looks to me as if what would have happened if Jesus had been officially accepted as Prince by his people is that the logical condition of human life, lost by Adam's sin, would have been restored, and we would be more or less as I described above. The fact that he was officially rejected and killed meant that he used his death as a means by which individuals could *regain* bodily life after dying and be saved from their sins; but they would have to go through death just as he had to.

So don't blame Adam. Jesus, I think, would have completely undone the damage Adam had inflicted on us if the people of his time had accepted him. But "he came into his own lands, and his own people would not accept him." But don't blame them either. Would you have believed some preacher who told you that you were never going to die? If you have ever sinned, you have no reason to say that you would have done any better than the Jews in authority in his day.

I think it significant that Christianity, which has always thought of itself as the truth about God's restoring to us what we have lost by our messing up of our lives, fits so well with what in fact we have lost, and what would be needed to restore it. You may say that this is because I as a Christian have built my view in such a way that Christianity is what restores it—and there may be truth in that. But I don't think so, especially since it was only in recent years that I have realized that the philosophical evidence indicates that there was some kind of a fall; up to that time, I believed it as a Christian, and thought of the Adam legend as simply a parable to illustrate the fact that we are fallen, and in nowhere near as literal a sense as I now think of it. Many Theologians, in fact, scoff at people who interpret the Adam story as anything more than an imaginative way of referring to the perverse tendencies each of us has. But then, many Theologians hold all kinds of weird views nowadays, some of which directly contradict any sane interpretation of Scripture.

Chapter 6

Self and person

But let us stop speculating about what might have been but clearly is not, and return to some of the implications of our nature as embodied spirits, even in our fallen condition.

Let me define a couple of terms, and then discuss them.

A *self* is a being which possesses itself, and makes itself be what it is.

A person is a self as related to other selves.

These are not the traditional Scholastic definitions, and owe a good deal to existentialism as well as Scholasticism. The Scholastics don't really make a distinction between a self and a person; and when their definition of "person" is analyzed, it comes pretty close to my definition of a "self."

The history of the concept of "person" is rather interesting. The Greeks had no such notion. The term "persona" was used by the Romans, who needed something to refer to an "honorary citizen," who was not by birth Roman, but who was to be treated in law as if he were a Roman. The *persona* (from *per*, through and *sonare* to sound) was the name given to the actor's mask, which had a megaphone inside it so that he could be heard; and since the Greek

for this mask was the *prosopon*, the "face," a "person" then was a kind of "character" the law put upon an individual, more or less as we now think of a corporation as a "legal person," able to be sued, and so on.

Then, when the early Christians wanted a term to describe the Trinity, who was one and the same being but still had a triple distinction which was not one of distinct parts (so that the Father was [all of] God, the Son was [all of] God, and the Spirit was [all of] God), they used the term "persona" to describe each of what was multiple about the Trinity. So there was one God and three distinct persons, each of whom was God Himself, with the Son *homoousios* (one and the same reality) as the Father.

By analogy, then, since we were the "image and likeness" of God, we also were persons—though of course only single ones; and since we were given our personhood by God, then our "legal status as person" came from God and inhered in our nature rather than being some kind of mask that was put on us by civil law, giving us privileges that we didn't really deserve.

When the Scholastics began asking themselves what it was in our essence that was our personhood, in which we were analogous to God, they came up with the definition of "person" as "suppositum rationale": a "rational supposit." A "supposit" is a "substance" that is an actually existing whole being, as opposed to a "substance as distinguished from its accidents," which is a "principle" of being.

So, according to them, a "person" is an actually existing thing which is "rational," and so which knows itself and wills itself; or in other words, it is what I called a "self" above.

Why I use "self" for this and reserve "person" for something else will appear shortly.

In any case, in my view, a "self" is something that recognizes what its being is and actively *chooses* that being, and so creates itself by its choices. God is the only self who *absolutely* knows and chooses

himself with no restrictions whatever; all other selves, of course, have restrictions on what they can accomplish by their choice.

I would think that *pure* (*finite*) *spirits*, who are pure forms of activity, would have the option of choosing which form of activity they wanted to be, which implies that they could recognize what was involved in each of the different forms of existence, and pick out the one they liked; but they couldn't act except as *only one definite form of activity*. So the complete unrestrictedness is only for them an abstraction allowing them to choose among the possibilities; but they couldn't actually *be* any more than one form of existence.

And this, of course, would allow for immorality and its consequent frustration. If we suppose that some angel chose not to be any one definite form of existence, but wanted to be all of them, or wanted to be infinite activity instead of a mere form of activity, then his choice would make him the form of activity that is dissatisfaction with itself; and of course, since he is pure spirit, this choice is eternal, and its consequences are the choice itself; and so he is damned without any possibility of redemption. He also has full knowledge of his act, and so even if per impossibile he were offered another chance, he would refuse it. "Better to reign in hell than serve in heaven!" Milton has Satan say.

Note that moral evil is *impotence*, not power; the devil may have power because he is a spirit, but not because he is evil; as evil, all he is is an intention of being something he can't be, and so evil is its own defeat; it can do nothing whatever.

So even though angels are eternal, and so presumably did not "begin" to exist, still they eternally exist as eternally having the options of what forms of existence are possible for them and as eternally choosing the one that they choose. If their effects spill over into our temporal world, this does not make them changing, any more than God's effects on our world imply that God changes, as I mentioned in Chapter 2 of Section 3 of the second part.

A more restricted self would be something like the first parent I speculated about above, who still could design more or less what type of being he wanted to be, but would have certain parameters outside which his choice would be unfulfillable in principle. This kind of self would have to be an embodied spirit: it would have to be a spirit, or it could not recognize itself for what it was, or choose what it wanted to be. It would have to be embodied, because a pure spirit is a pure form of existence, and the choice above implies restrictions within a basic form of existence (like the mammalian).

Still more restricted would be a self that has control over any sub-forms (like race and sex), but cannot control the basic kind of body which it is. There are a few human beings who, because of genetic abnormalities, actually have the characteristics of both sexes; and such people have to *choose* which sex they will be when they reach puberty, because they must spend their adult life as one or the other, but neither one is predetermined for them.

Of course, the ordinary human self has no control over his sex or race. There is no contradiction, I think, in something like a transvestite's dressing as one of the opposite sex (or all women nowadays would be guilty of sin; in our culture, transvestism is frowned upon only if it is a man who does it); but when a person tries to have a "sex change operation" and actually modifies a part of his body so that what used to have a function no longer has it, he has violated his reality. That sort of thing would be an attempt actually to change one's sex, and is doomed to fail.

As to race, it would not be immoral for a White person, for instance, to dye his skin (provided it was safe and didn't cause health problems) so that he would have a skin as black as a Nigerian; but of course, this would not make him a Black person. It is difficult to see how a person could actually violate his reality by doing something to imitate one of another race; but then, it is difficult to see how anything a person could do to himself would be construed by anyone

as actually changing his race, the way the mutilation of one's sex is regarded as a "sex change."

So finally, we get to the lowest kind of self, that which we are, the one who can choose what level his biological equilibrium is to have, and what properties are to be stressed and what deemphasized or even not exercised at all (as when a person chooses to be celibate); but whose choice has no control over what form of activity nor what subform it is.

It is, of course, selves that are referred to by *personal pronouns*. Actually, *personal* pronouns is probably a little more accurate, since they would only be used in a community to refer to selves; a self that was completely isolated would have no occasion to speak of himself, let alone use a language involving personal and impersonal pronouns.

It is, of course, unfortunate in one respect that as our language developed, the personal pronouns had gender attached to them, and the neuter pronoun was the impersonal pronoun—so that we have no pronoun to refer to genderless persons such as angels or God, and have made do by having the masculine do double duty as both masculine and neuter personal pronoun. I mentioned this in the preceding section when talking about language. But I might remark here that these "personal" pronouns also refer to non-persons that are male or female, if they are animals. We do sometimes talk about female holly trees, but it would sound odd to refer to one of them as "she"; on the other hand, dogs are quite naturally referred to as "he" or "she" in spite of the fact that they cannot (so far as we can tell) understand relationships—which means that they can't know what they are and so can't choose to be what they become, and therefore are not selves.

The selfhood of the self does not exist only when he is *actively choosing* or *actively knowing* himself as such, or we would cease to be selves when we fall asleep, and would become mere animals, which is ridiculous. So it is obvious that our selfhood does not come from

our *properties* but our *nature*: the structure of our bodies, and the fact that they are organized with spiritual souls, not immaterial ones. Hence, we can draw the following conclusion:

Conclusion 11: A self is a self for the whole of his existence, even when he is not exercising (or cannot exercise) his acts of understanding and choosing.

This is an important conclusion, because there are some nowadays who would deny "personhood" to human fetuses and unconscious humans on two grounds, the first of which is that they are not "free, self-determining individuals" ("selves" in my sense) because they are incapable of determining themselves because they are unconscious.

Thus, the fetus—or at least the embryo—would not be a self yet, because he hasn't yet a brain, by which he could make choices; a human being in a permanent coma or "persistent vegetative state" has stopped being a self because he has permanently lost consciousness and so cannot be self-determining any longer.

As to the second case, the *fact* of being unconscious clearly does not, as I said above, deprive the self of selfhood, because then everyone would stop being a self as soon as he fell asleep. And since the people who define the "permanently unconscious" as not selves do this as grounds for its being all right to kill them, then by that logic it would be all right to kill anyone as long as he was asleep. This is why they add the qualification "permanent."

Unfortunately, there is no way to distinguish a "permanent" unconsciousness (or "vegetative state") from a *temporary* lapse into this condition, except that if a person dies while still in that condition, it was permanent. There was a case within the past year or so in which a person in a "persistent vegetative state" had the feeding tubes removed, and the shock woke her up. Granted, it's rare; but if

it ever happens, this is evidence that the self is still "there," and simply can't exercise its powers of self-determination because of bodily damage.

And that, in turn, means that the self depends on the unifying activity of the body, and whether that unifying activity is still making the body live as a unit. There are times, as I said under Conclusion 2 of Section 1 of this part, when you can keep the appearance of being alive in a corpse by keeping the individual parts alive and making them act as if the interaction (the unifying energy) were doing this; and of course in that case, what is there is neither a self nor a human being, nor even, really a body, but a system of parts that are only artificially stuck together.

So if there are times when you can "withdraw life support" and let the body die when the self is in this "persistent vegetative state,"⁷¹ you can't justify this on the grounds that he's no longer a self, because "for practical purposes" he's dead already. In the same sense, "for practical purposes" you are dead already when you fall asleep; you certainly can't make choices to change your life.

As to the fetus, obviously he is not in a "persistent vegetative state," because he's going to wake up quite soon, to the considerable discomfort of his mother, who will have to spend a few months with him squirming and kicking inside as he gets bigger and tries to be comfortable. It is silly, as I said in Chapter 2 of Section 2 of the First Part and in Section 1 of this part, to say that a fetus is not a human being; and if he is a human being, then he is organized with a spiritual soul, and if so, he is a self.

There are some early Scholastics who talked about "gradual ensoulment," that the human first had only a vegetative soul, and

⁷¹We will have to wait until much, much later to see this. There *are* times, as long as you are not *choosing* the death.

^{6:} Self and person

then later on in gestation had an animal soul, and finally the human, spiritual soul was "infused" into this animal, either at birth or some time before or after birth; which, of course, would make the human a self only at this last "infusion" of soul.

But the vegetative being and the animal would have to be peculiar beings indeed, since the purpose for this "vegetable" or animal would be a being utterly and infinitely beyond it; and since instability implies a discrepancy between the form of the unifying energy and its quantity, and gives the being its direction, how could it have a direction toward something beyond its form? The quantity of the form it has couldn't determine the purpose, because the quantity is infinitely below it; and the form it has couldn't determine the purpose, because that form is also infinitely below it. Hence, it couldn't be developing toward something greater in every sense than itself, because there would be nothing in it which could establish the direction.

That is, a developing being *already is*, in some sense, where its purpose is, because it is the fact that the form *needs* the proper quantity (and doesn't have it) that is the instability. This is the meaning of Aristotle's being "in potency" to what it will be and his "privation of the form."

So there is no metaphysical possibility of a gradual development of different types of souls in a human being; this was another one of those misrepresentations of life based on the soul's being a "something" that got insinuated into a body somehow, giving the impression that all life is identical and so on that we talked about earlier in this section in discussing reincarnation.

Hence, there is no evidence that any living human being is anything other than a self; and those who hold this would logically have to admit other things about human life and selfhood that they are not willing to admit.

So much for the self, then. What does personhood add to this? It

adds the fact that some selves are *interrelated* in their selfhood in such a way that one self's actual *realization* of himself can be helped or hindered by what another self does.⁷²

What this amounts to is that your self-development can be interfered with by my self-development (or helped also), and vice versa. But if my self-development *prevented* you from developing

⁷²God, of course, cannot be affected in his divinity by anything any creature does. But he freely chose to "empty himself" in one of his "reduplications," which then restricted himself to acting only as a human being (and so he "took on" a human *nature*. This particular "reduplication," then had only one existence (of course), but *two different natures*: he was simultaneously truly God and truly a man.

Jesus, of course, is one *self* because of his one existence (which is identical with the Father's); but this particular self, as a "reduplication" of the Father's existence, is the one that is also "emptied" into the restricted human nature, and so it can be said that within this one being, there are two *interrelated* selves, inasmuch as the Father is not so restricted. And the same goes for the Spirit; since it is the Spirit who unifies all human beings into the "one body" St. Paul speaks of who lives with the life of God, and so dwells in each of us and all of us as a kind of special unifying energy, this "reduplication" of God who performs this function in human beings is again a self in relation to the Son and the Father.

And therefore, these are not "selves" but *persons*, because no one of them is "independendent," but is really only a "reduplication" of the one Infinite Act; and their selfhood is bound up with the selfhood of God Himself. And therefore, even by my distinction between "self" and "person," God is one being with three *persons*, and Jesus is one *person* with two *natures*. Obviously, the Persons of the Trinity are only Persons or Selves in an analogous sense; but you can see the point of the analogy by what I just said.

Note that Jesus and the Spirit, at least, are affected as persons by what human beings do; because the person is the unit. Jesus was clearly affected *in his humanity* by what we did to him, and therefore, since he is a divine Person, that divine Person was affected by us. Similarly, when a human being chooses to become Christian and live with the life of God, then the Spirit, as the unifying "energy" of all these individual "cells" of the Mystical Body, is in some sense different in his activity of unifying, and so that Person is also affected by what human beings choose. But neither Jesus nor the Spirit is affected *in their* (his?) *divinity*, of course.

yourself, then—at least in our "fallen" condition—I would be putting myself in the self-contradictory condition of being the one of the two of us who could *really* determine himself, while I would recognize that you are a self-determining being who can't really determine himself (because I kept you from it).

And this is why personhood is the basis of *rights*. Personhood recognizes the fact of interference and help by selves to selves and *respects the selfhood of other selves*, *while demanding the same respect from other selves*. Or in other words, personhood recognizes the interactive character of selves who are *bodies* and demands that that interaction not contradict their selfhood.

Conclusion 12: It is inconsistent for a person to choose his own development in such a way that he prevents another person from being in practice the self that he is. Doing so violates the *right* of the other person, and so one's own nature as a *person*.

This needs a good deal of spelling out, but it will have to be left to much later, when we talk about ethics. Let me just make a couple of remarks here, which have a more metaphysical flavor.

First, this respect of rights applies only to *persons*. Animals have no rights, because they are not selves, and so are not persons, and can't get into that reciprocal arrangement whereby "I'll let you alone if you let me alone." If an animal interferes with my development or does me harm, it does so *by the necessity of its nature*, and there is no sense in which it could "help it." If a *person* does me harm deliberately, then he does so *as a person*, and so is *responsible* for the harm he has done in violating my right.

I can, of course, defend myself against harm both from animals and other persons, but self-defense against a person is more restricted. I cannot defend myself from having my money stolen by

killing the other person, while I could kill an animal that was running off with my wallet. But we will see more of this in ethics. Animals may not be wantonly tortured or killed; but this is not because they have rights. You say, "Well, if we can't do it to them, then why quibble over terms? Why not just say they have rights?" Because there are serious implications in rights; and if animals have *any* rights, they automatically have very inconvenient ones, like the right not to be sterilized, and the right to life. You would have to exercise great circumspection with your fly swatter if animals had rights.

The second grounds on which some have tried to deny what they call "personhood" to the fetus and the comatose deals with "personhood" in this sense of requiring respect for others. They say that fetuses and the permanently unconscious are not persons because they are not "part of the moral community," since they can't interact in this reciprocal way, and so have no rights, even if they are human beings and in some sense selves.

But this won't wash either, because sleeping people would then be selves that aren't persons (because they certainly don't interact with others in a personal way while asleep); and so everyone would lose his personhood and all his rights as soon as he fell asleep—and if you had a good reason for killing someone, all you'd have to do is wait until he was asleep, and you wouldn't be violating his right to life, because as a temporary non-person, he wouldn't have one.

The fact that fetuses are not *recognized* as persons by many in our age does not *deprive* them of personhood nor of their rights, any more than the fact that Blacks were not recognized as persons two centuries ago in this country actually made them non-persons or gave them no right to liberty. They *were*, as Jefferson (who owned slaves) realized, self-determining and persons; and so they could not *in fact* be owned by anyone, even if that person thought he could own

them.73

Women *in fact* have the right to pursue careers that are not traditional women's careers (as long as they don't interfere with anyone else's personhood while they are at it); and if the majority in the country at one time didn't think they did, then the majority were *wrong*, because the majority didn't *confer* this right upon the women, they *had* it because of their being selves.

Secondly, notice that personhood has nothing to do with "equality." We are not persons because we are equal to each other; each person lives at his own biological equilibrium, and some are greater human beings than others. We are persons because we are free to choose our own reality, within the limits given for us. And we do not have rights because we are "equal" either, still less a right to be equal to others, or even to have "equal opportunity." The right is negative: not to be interfered with, not an affirmative right to be helped by others toward your goals—except insofar as not helping (e.g. withholding food) would be the equivalent of doing damage to your present condition. We also have rights against superior beings such as angels and devils; no angel may interfere with me against my will.

But let that suffice here. The study of rights will be deferred to the modes of interaction and the modes of conduct.

As to the positive side of personhood, that of helping others, then there are two things to note:

First, since the person is a self, and so self-determining, then it

⁷³Jefferson didn't free his slaves, it seems, because he thought that to do so would be to expose them to starvation or to capture and enslavement by others, and so using the Principle of the Double Effect (which again we will see later) he kept them with the intention of shielding them from a worse fate. I have no particular desire to defend Jefferson, but this at least seems to be what the facts were.

follows that there is a certain sense in which persons are "independent" of one another, and if I want help from you (subordinating your self-development to mine, as in asking you to teach me), then I must *compensate* you for your wasting your time in my behalf by doing something to help you achieve your goals.

This is the whole area of *economic activity*, and it will be treated later in the modes of interaction.

Secondly, it is interesting that, because of the condition we are in, in which we understand by knowing relationships based on sensations and being affected by energy coming into the nervous system, it follows that we cannot know ourselves as selves unless we observe others like us determining themselves.

Hence,

Conclusion 13: A human being cannot develop himself as a self without being a person, related to other selves.

So-called "feral children," those brought up without any human contact, lose the ability to function as persons if they do not have human contact by the time they are twelve or thirteen. If they were brought up by animals, they then behave their whole lives as animals. They apparently have lost the ability to understand themselves; and if they have any understanding, it is buried in the practice they have had of using their brains simply to make connections.

Hence, we need other persons in order to be selves; and this means that a part of our selfhood is the effect of other persons' actions.

This also has moral implications. Since children are physically helpless and since they need to observe other people (adults, too) in order to know what their possibilities are, and since they cannot hope to compensate their benefactors for this service (because certainly at that time they have nothing to give), then this implies several things:

First of all,

Conclusion 14: Human beings must not always demand compensation for performing services to others.

That is, if a human being is a parent, then the very act of causing a helpless human being to exist means that the parent then has the duty of performing the services that that child needs, until he can be in practice self-determining—without expecting compensation for this from the child. Otherwise, he contradicts himself as a parent.

And since all of us have been children, and been the recipients of this uncompensated service, it follows that we cannot then say that we will *never* perform uncompensated service to others, or we deny that we are *interdependent* beings.

Hence, the *purely economic way* of looking at personal relationships is not consistent with human nature; we have a *different sort* of relation to others that *has nothing to do with economics*.

And this is the second point to note.

Conclusion 15: Human beings are related to each other not only economically (as "independent," with rights), but *socially* also (as "interdependent" and loving).

And this, of course, opens up the whole *social* relationship of human beings with each other, which cannot be reduced to the quid-pro-quo of the economic relationship (nor can the economic relationship be reduced to this one); and that also involves several chapters of its own, to be treated in the modes of interaction.

Let me make one remark which I couldn't fit anywhere else to finish off this section and this part, before we get into the modes of thought:

There is nothing so useless and counter-productive as having ideals and standards, especially standards for others' behavior and conduct.

An ideal is something that you created using your own imagination, and has no objective reality, even if you got it by abstraction from a lot of instances. Obviously, as I have pointed out before, *as* an ideal, it doesn't exist.

Its function, as we can now see, is that ideals can be turned into *goals* by using them to create instabilities in ourselves and working toward them. But if the ideal is simply kept as an ideal, and used to compare the facts to, then it is sterile—and often pernicious.

A person who has a set of ideals has a number of (made-up) *standards* he uses for *making evaluative judgments* about the world, complaining about the fact that it doesn't agree with his idea of the way it "ought" to be. These evaluative judgments are certainly *facts*: i.e. it is a fact that the world doesn't agree with your ideal; but there is no factuality to the *ideal itself*, or to the "oughtness" you impose on the world.

Conclusion 16: All ideals and standards that are not turned into goals allow you to do is complain about the way the world is.

And the point is that complaining is a futile activity. It gets nothing done about the "wrong" or "bad" situation, because it merely recognizes it as something that does not meet your lofty standards. It also gives the evaluator a false sense of self-importance, because it looks as if he knows the way the world "really ought to be," and is more intelligent (or has "better taste") because he has high standards. But of course, the standards have nothing objective about them, and the fact that he can imagine things as different from

the way they are gives him no real insight into the way things *really* are, and is simply a misuse of the ability he has to form goals for himself.

And I suspect that the chronic complainer, who makes no effort to turn ideals into goals, will be a complainer forever in the life after death, because he chooses to consider an unreal world as the "real" world and look on the real world with contempt, not respect.

There is nothing wrong with considering the world as not what you *want* it to be, and having goals for it that *respect its reality* and lead it toward the goal you have for it. But if you have "ideals" and "standards," then woe to you:

"Judge not, lest ye be judged."