CHAPTER 5

The Problem of Personal Identity

To capture my own existence it seems enough to use the word "I," whose meaning is entirely revealed on any occasion of its use. "I know what I mean by 'I.' I mean *this*! "

—THOMAS NAGEL, *THE VIEW FROM NOWHERE* (1986)

5.1. The Problem

Can we possibly survive death? The answer depends on what "we" are. Is a person the sort of thing that can survive the disintegration of the body? Most people in our culture seem to think so; they believe that after you die, your body rots in the ground, but you wake up in heaven (or somewhere else you don't want to be). Does that belief make sense? Could the person who dies on earth be the *very same person* who wakes up in heaven? To answer these questions, we must grapple with the problem of personal identity. We must think about what persons are.

A Thought Experiment. Suppose scientists invent a machine that, they hope, can make a perfect copy of anything. It works by scanning an object's atomic structure and then assembling identical atoms in the same pattern. The Duplicator successfully copies various items, starting with paper clips and ashtrays, and then a computer that runs perfectly. It makes a chocolate cake that tastes fine. When a painting by Picasso is duplicated, the scientists don't pay close attention, and now no one knows which painting is the original. The ultimate challenge, however, is to reproduce life. Preliminary tests go well—a mouse is duplicated, and the copy is every bit as frisky as the original.

Now the scientists want to conduct one final test. They want to duplicate a human being, and they have picked you for the honor. If you agree, a copy of you will be made that will have your memories, your beliefs, your desires, and your personality. It will believe it is you, and no one—not even your closest friends and family—will be able to tell the difference. It will, for all practical purposes, *be* you. There is only one catch: We can't have two of you running around, so after the procedure is completed, the original "you" will be destroyed and the new "you" will carry on as before. For your trouble, you will be paid a million dollars.

Would you agree? One way to think about the situation is this: there is *you*, and after the test there is *you plus $1 million.* On this view, you should take the money. Few of us, however, would think that way. Instead, we would think: *I'll be dead.* It doesn't matter that the duplicate will act like me and have my memories and emotions. Nor does it matter that the duplicate will believe it is me—the fact is, it won't be. I'll be dead, and it will merely be a copy of me.

Now consider the afterlife. According to traditional belief, when you die you will lose consciousness and your body will decay. Here on earth, it will seem like you no longer exist. Meanwhile, in another world, someone will appear with your beliefs and memories. That person will believe she is you. But will she really be you? Why won't she just be your duplicate? This question is important. All of us want to go to heaven, but few of us care whether our duplicate gets to go.

5.2. Personhood at a Time

The problem of personal identity is the problem of what we are. It has two aspects. First, there is the question of what a person consists in at a particular time. What does it mean to be you, right now? Second is the question of what makes someone the same person at different times. The child at your seventh birthday party, blowing out the candles, was the person who is now reading this sentence. How should we explain that fact? These questions—of personal identity at a time and over time—are related. We'll take them up in turn.

The Bundle Theory and the Soul Theory. What does a human being like you consist in, at a given moment or over a brief

stretch of time? Two points should be uncontroversial. First, you have a physical body. Second, you have a mental life that takes place in, and is sustained by, your physical body.

Your mental life includes perceptions, thoughts, memories, emotions, and the like, which are connected with one another in various ways. The individual items come and go. Some, such as your awareness of this sentence, are short-lived. Others, such as your memories of your parents, may persist for a long time. Some of them may be related to one another by cause-and-effect: for example, remembering the day you passed your driver's test might make you feel proud. When you go to sleep, many (if not all) of your mental items cease to exist; and when you wake up, they are succeeded by a similar parade of items, many of which resemble and are caused by the earlier ones.

Does anything more need to be added? One hypothesis is that you consist simply of your body together with this collection of mental items. This is the Bundle Theory. Many people, however, think that the Bundle Theory leaves out something important. They believe something like this:

> Within each person is a kernel that may be called the *soul* or the *ego* or the *self.* It is the subject of all the person's experiences. It is simple and indivisible. And it is present throughout the person's life.

This is the Soul Theory. The Bundle Theory denies that there is any such soul. On the Bundle Theory, *the parade of mental items is all that exists,* so far as the "mind" is concerned.

The Bundle Theory may be hard to accept, because you may feel that, in addition to the various experiences you have, there is the being who *has* the experiences—and that being is *you.* David Hume (1711–1776) understood this problem. He said, "[Human beings] are nothing but a bundle or collection of different perceptions"; and when asked whether there mustn't be a "self" that has those perceptions, he replied that there is no reason to think such an entity exists:

> [W]hen I enter most intimately into what I call *myself,* I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch *myself* at any time without a perception, and never can observe any thing but the perception.

Consider this analogy: A car consists of an engine, a body, a transmission, wheels, an electrical system, and so on. Suppose we listed all the parts of a car and asked: "But isn't the car itself something separate from all these parts? After all, it is the car that *has* an engine, a body, a transmission, and so on." Obviously, this is silly—the car is not some mysterious thing in addition to all of its parts. The car is simply the collection of those parts arranged in a certain way. Similarly, a "self" may simply be a bundle of mental items, combined with a body, and nothing more.

Split Brains. How can we decide between the Bundle Theory and the Soul Theory? Hume's point was that the Bundle Theory is faithful to what we actually observe. We observe the parade of mental items, but we never observe a "self." This eighteenth-century observation accords well with our present-day scientific view of the person. In a scientific account of human beings, we are apt to talk about behavior, the brain, various mental phenomena, and the relations among them; but scientists do not talk about a separate, simple "self" or "ego." And we may add to the scientific picture an amazing discovery about the brain.

In 1981, Roger W. Sperry was awarded the Nobel Prize in Physiology or Medicine for his work on split brains. Earlier in his career, Sperry had demonstrated that different parts of the brain serve different functions. Then, in the 1960s, he and his co-workers studied what happens when the brain's two hemispheres are split apart.

In a normal human being, the left hemisphere of the brain contains the "language center" and does mathematics and other kinds of analytical thinking. The right hemisphere specializes in other matters, such as spatial comprehension, map reading, and recognition of faces. The right side can do simple calculations—it can perform addition, but only up to about 20. The right side of the brain controls the left side of the body, and vice versa.

You might think that the two hemispheres would sometimes interfere with each other, with signals from one side contradicting signals from the other side. Normally, however, this does not happen, because the hemispheres communicate with each other through a bundle of nerves called the corpus callosum. When the corpus callosum is severed, as is sometimes

done to treat epilepsy, the hemispheres cannot communicate, and strange things happen:

- If a split-brain patient is asked to reach into a bag and identify an object, such as a pencil, she will be able to identify the pencil with her right hand but not with her left hand.
- When the words "Give me the pencil" are shown to the left side of her visual field, she will insist that she cannot see any pencil. At the same time, her left hand will be picking out a pencil from a collection of objects and offering it to you.
- Similarly, if an odor from a clove of garlic is fed into her right nostril, the patient will deny that she can smell anything; but if she is asked to point to what she has smelled, the left hand will point to the garlic.

What should we make of this? It looks as if the patient has split into two persons who are at odds with each other. Sperry himself concludes that each side of the brain is "a conscious system in its own right, perceiving, thinking, remembering, reasoning, willing, and emoting, all at a characteristically human level, and . . . both the left and the right hemisphere may be conscious simultaneously in different, even in mutually conflicting, mental experiences that run along in parallel."

The Oxford philosopher Derek Parfit saw a connection between these results and the Bundle Theory. Parfit considered this case: A split-brain patient is shown a blue patch in the left side of his visual field and a red patch in the right side. Pencils are placed in each of his hands, and he is asked to write down how many colors he sees. The left hand writes "only one" and the right hand writes "only one." So far, so good. But when asked what color he sees, one hand writes "blue" while the other hand writes "red."

We have here two streams of consciousness. In one, blue is experienced and reported; in the other, red is experienced and reported. The two streams do not interact. How many persons are there under these circumstances? If we assume that a person is a soul or a "self" that underlies experience, then the question is surprisingly hard to answer. "One person" sounds wrong, because each stream seems to have its own "self"—the self associated with one stream has no access to the experience or behavior

of the self associated with the other stream. But if we say that there are two selves, we invite a barrage of embarrassing questions: Where did the extra self come from? Is one of the selves the same as the original person? If so, which one? And if neither is the original, where did the original person go? Did he die?

The split-brain case exposes the weakness of the view that people consist of souls. The Bundle Theory, however, provides a neat description of what is happening in these cases. There are now two streams of consciousness, because the two hemispheres cannot interact. Each stream contains familiar sorts of elements. That is all there is to it. Parfit concludes that the numbers of selves present in a split-brain patient is the same as the number of selves normally present in us—none.

This is unsettling. If the Bundle Theory is correct, then we are not what we thought, and we may not like what we are. Common sense says that, when we die, it is at least possible that we will go to heaven. But if the Bundle Theory is true—if we are just a body and a parade of mental items—then how could we survive the destruction of our body, the disabling of our brain, and the disruption of our conscious experiences? A belief in heaven seems to presuppose that a person is a kernel, or a soul, that could shed both body and mind.

5.3. Personhood over Time

If the Soul Theory were true, then it would be easy to say what makes you the same person at different times—the same kernel is present at each time. If that little kid at the birthday party was you, then this is because you and he have the same soul (or better yet, you and he *are* the same soul). Admittedly, it would be hard to know whether the same kernel was present at different times; the soul can't be seen or touched or detected in any normal way. However, we would at least know what personal identity over time consists in.

On the other hand, if the Bundle Theory is true—if a person is a body plus a collection of mental items—then a fundamental problem remains: Which part of the bundle is crucial for your continued existence? Obviously, you could lose your left leg and still be you, but could you survive the loss of your memories, or your brain, or your personality? Different theories give different answers.

Numerical and Qualitative Identity. There are two ways in which someone might be "the same person" at different times. On the one hand, you are the same person you used to be if you have the same personality—your character hasn't changed, your sense of humor is the same, and so on. Suppose that my old college roommate, John Smith, was likable and quick-witted. But over the years he has become mean and humorless. I might complain that this new John Smith is not the person I roomed with; he has changed. If I said this, everyone would know what I meant. John Smith is *qualitatively* not the same as he used to be.

On the other hand, however, he *is* the person I roomed with—he is still John Smith, the guy I roomed with in college. He has not been replaced by an imposter. If the sheriff comes looking for the man who roomed with me, there he is. John Smith might have changed over the years, but that doesn't matter—*the same person* who was likable and funny is now grim and unpleasant. He is *numerically* the same individual. When philosophers ask whether person A is the "same person" as person B, they are almost always asking whether A and B are *numerically* the same.

Is personal identity important? Does it matter whether someone in the future will be *you*? Remaining the same person qualitatively is a good thing only if you are a good person; otherwise, it would be better if you changed. But we all want there to be a future person who is numerically identical with us. Otherwise, we will not exist. What does it take to be the same person, numerically, at different times?

5.4. Bodily Continuity

There are various ideas about what makes someone the same person at different times. One is the Same-Body Theory:

> *The Same-Body Theory:* X, who exists at an earlier time, and Y, who exists at a later time, are the same person (numerically) if and only if they have the same body.

Years ago, when I last saw my roommate, someone could have (in theory) started observing him, and they could have traced the long, unbroken path through space and time that led him into my presence again today. That path connects the person then with the person now and makes them the same. Of course,

his body may have undergone some changes. He may have gained a little weight and lost a little hair. But that does not matter. Physical objects can change, within limits, and yet remain the same physical objects.

In everyday life, the Same-Body Theory works well enough. Sameness of body and sameness of person always go together, so it is natural to think they are the same thing. But this criterion seems to rule out the possibility of postmortem existence. If my roommate dies and his body is rotting in the ground, then he cannot be in heaven. Someone else might be there, with "his" memories and personality, but it cannot be him.

The Prince and the Cobbler. Is the Same-Body Theory correct? John Locke (1632–1704), the first major philosopher to discuss personal identity, argued that "sameness of body" cannot be the measure of whether two individuals are the same person.

Suppose, Locke said, we imagine that the mind of a prince is magically transferred into the body of a cobbler—a common laborer who makes shoes. The prince wakes up one morning, looks around, and is horrified to find himself in the cobbler's humble bed. He looks in the mirror and is even more horrified to see the cobbler's face staring back at him. Pulling himself together, he marches off to the palace, tells the guard that he is the prince, and orders him to open the door. Meanwhile, in the palace, the cobbler's mind has been transferred into the prince's body. Upon awakening, he is frightened to find himself in the prince's bed, and he tries to leave before he is discovered.

Now consider the individual who has the cobbler's body but the prince's memories and personality. Who is this person? Is it the prince or the cobbler? If the body is what matters, it must be the cobbler. But Locke thought otherwise: "Everyone sees he would be the same person with the prince, accountable only for the prince's actions." Therefore, Locke concluded, we need a different theory of personhood.

The Ship of Theseus and the Human Body. Plutarch, an ancient Greek writer, told a riddle about an ordinary ship. This ship, the Ship of Theseus, was composed of wooden planks, and once in a while a plank would get damaged or become rotten and then be replaced. Eventually, *all* of the ship's planks had been replaced. This raises a question: Is the new Ship of

Theseus the same ship—*numerically* the same—as the old Ship of Theseus? It would seem not. A ship is composed of a bunch of planks; once the planks have been removed, the ship is gone. Gradually, it seems, the Ship of Theseus was disassembled.

Now consider the human body. It gets disassembled, too. Our bodies are composed of cells, and new cells are constantly being created to replace the old. Old bone cells are replaced by new bone cells; old skin cells are replaced by new skin cells; old heart cells are replaced by new heart cells. This process is called "cell regeneration" or "cell turnover." After about nine years, most of the cells in the human body have been replaced. So, the body of a 60-year-old is composed mostly of cells less than nine years old.

These facts create another problem for the Same-Body Theory. If our bodies get replaced, bit by bit, then no human body lasts more than nine years or so. Thus, no human being survives more than nine years, if we are our bodies. The John Smith of today cannot be the person I roomed with many years ago because these two individuals have different bodies. This implication of the Same-Body Theory is certainly odd, if not downright absurd.

Now consider some other facts about human biology. The main type of brain cell is the neuron. Although our cells are constantly being replaced, most of our neurons never get replaced. Some do, but most do not. An old man had most of his neurons when he was an infant. Thus, even if our bodies don't exist more than nine years, our brains do. And perhaps the persistence of the brain is enough to ensure one's continued existence. The brain, as the seat of higher functioning, does occupy a special place in the human body. This suggests a new theory:

> *The Same-Brain Theory:* X, who exists at an earlier time, and Y, who exists at a later time, are (numerically) the same person if and only if they have the same brain.

This theory could be defended from the Ship of Theseus example. In the actual world, our neurons do not get replaced like the planks of Plutarch's ship. We retain the same brain throughout our lives.

This theory is promising, but we won't try to assess it. However, I will mention one problem. When a person dies, her brain has ceased functioning in important ways. Nevertheless, her brain may still exist because it takes time for one's body

to decompose. Suppose, for example, that a healthy person drowns over a 10-minute period. At the end of those 10 minutes, she no longer exists (on earth, anyway), but her brain is still there. Those who believe in the Same-Brain Theory will be hard-pressed to explain how she has ceased to exist while her brain is still around. In its simplest form, then, this theory fails.

5.5. Memory

A different theory of personal identity focuses on mental connections—in particular, the connections of memory. I am certain that I am the person who went to the movies yesterday, sat in the third row, and talked to his wife, because I *remember* going to the movies, sitting in the third row, and talking to my wife. I am certain that I was John Smith's roommate because I remember living with him. Where the connections of memory are strong, personal identity seems certain. So we might propose this theory:

> *The Memory Theory:* X, who lived at an earlier time, is the same person (numerically) as Y, who lives at a later time, if and only if Y can remember doing what X did, feeling what X felt, thinking what X thought, and so on.

If this theory is correct, it explains why the individual in the cobbler's body is really the prince. He is the prince because he remembers living in the palace, giving orders to the servants, and so on. This theory also accommodates the idea of an afterlife—if the person in heaven has your memories, then that person is you.

This was Locke's theory. However, it is open to a decisive objection. We forget things all the time. I cannot remember any of the thoughts that I had an hour ago. On the Memory Theory, we cannot say that I am the person who had those thoughts. This seems absurd.

Thomas Reid (1710–1796), the Scottish "philosopher of common sense," brings up a related objection to the Memory Theory:

> Suppose a brave officer to have been [beaten] when a boy at school, for robbing an orchard, to have taken a [battle flag] from the enemy in his first campaign, and also to have been made a general in advanced life; suppose, also, which must be admitted to be possible, that, when he took the [flag], he was conscious of his having been [beaten] at

> school, and that, when made a general, he was conscious of taking the [flag], but had absolutely lost the consciousness of his [beating].

This is a common turn of events. When a man is 25, he may remember being 12; and when he is 60, he may remember being 25 but not remember being 12. If we apply the Memory Theory to this scenario, we get a strange result: The boy is the same person as the young man, and the young man is the same person as the general, but the boy is not the same person as the general.

What is wrong with this? The problem is that the relation "same person as" is *transitive.* This means that if A is the same person as B, and B is the same person as C, then A must be the same person as C. For example, if Lee Harvey Oswald is the person who killed John Kennedy, and the person who killed John Kennedy is the person who was shot by Jack Ruby, then it follows that Lee Harvey Oswald is the person who was shot by Jack Ruby. On the Memory Theory, however, it turns out that the same-person relation is not transitive: A (the boy) might be the same person as B (the young man), and B (the young man) might be the same person as C (the general), yet A (the boy) is not the same person as C (the general). Therefore, the Memory Theory cannot be right.

However, the Memory Theory can be revised to get around these problems. Rather than ask whether the later person *remembers* the earlier person's life, we can ask whether a *chain of memories* connects the two individuals. When Y remembers X's life directly, then the chain is short: Y and X are the same person because Y remembers being X. However, in other cases the chain may be longer. In Reid's example, the young man connects the general to the boy. The general is the same person as the young man because the general remembers being the young man; the young man is the same person as the boy because the young man remembers being the boy; and so, the general is the same person as the boy. In my earlier example, though I don't remember what I was thinking an hour ago, I do remember what I was thinking five seconds ago; and five seconds ago I remembered what I was thinking ten seconds ago; and so on. Thus, we have:

> *The Memory-Links Theory:* X, who lived at an earlier time, is the same person (numerically) as Y, who lives at a later time, if and only if a chain of memories links X and Y.

This theory has an interesting implication about dreams. Most of us have forgotten our dreams by the time we wake up in the morning. Does this mean that we were not the ones who had the dreams? According to the Memory-Links Theory, the question is whether a chain of memories can link "Dream Person" to "Morning Person," thus establishing their identity. When you dream, you sometimes dream about real events or real people. If so, a chain can be found: Dream Person and Morning Person may both remember something that happened before the dream, to Earlier Person. If, however, Dream Person remembered nothing about Earlier Person, then no link would exist. In that case, Morning Person would not have been the one who had the dream. Rather, Dream Person would have existed only during the dream.

Memory and Responsibility. Locke favored the Memory Theory not only because it explains how we might survive death but also because it fits with our beliefs about responsibility and punishment. In discussing the prince and the cobbler, Locke notes that the individual with the prince's memories should be held accountable for the prince's past actions; and from this he concludes that the individual with the prince's memories *is* the prince, even though he has the cobbler's body. Personhood follows the memories, not the body.

Let's consider Locke's argument in its most general form:

(1) Memory always goes with responsibility. (Whether you should be held responsible for an action depends on whether you can remember doing it.)

(2) Responsibility always goes with identity. (You are always responsible for what you do; you are never responsible for what others do.)

(3) Therefore, memory always goes with identity.

(4) Therefore, some version of the Memory Theory is true.

What are we to make of this? In defense of the first premise, responsibility does seem to depend on memory. Suppose my old roommate, John Smith, committed a crime—say, he robbed a bank—but then he suffered amnesia. When he is now shown the surveillance video of the robbery, he is amazed. In these circumstances, it would seem strange to blame him. Because he

cannot remember committing the crime, he no longer seems to be a proper target of our indignation.

However, this line of thought is too weak to justify the first premise. It does not show that memory *always* goes with responsibility, as the premise states. Suppose that, after many years in prison, a murderer serving a life sentence has changed—perhaps he has become religious, or has written a remorseful autobiography, or has simply matured. If we are convinced that the transformation is genuine, we may conclude that it is no longer appropriate to keep him behind bars. The prisoner *remembers* committing the act, but he is no longer responsible for having done it. In this scenario, memory doesn't go along with responsibility. Also, responsibility does not go along with identity, in violation of the second premise: The prisoner is the person who committed the crime, but he is no longer responsible for it.

The idea here is that responsibility seems to depend on sameness of person in the *qualitative* sense only. After his transformation, the murderer is a "different person" in the sense that his character has changed fundamentally. That is why it seems wrong to keep him locked up. We have "statutes of limitation" on many crimes partly for this reason: If someone shoplifted in 1979, we might wonder whether she is still the "same person" today, or whether her character has changed significantly in the intervening years. None of these thoughts need affect our belief that the reformed individual is the person who committed the crime—the *numerical-identity* claim holds true.

Is the Memory Theory Trivial? Memory is notoriously unreliable. We "remember" things that never happened, and we forget things all the time. Even when our memories are mostly accurate, our minds will add in fictitious details. For example, people who were alive at the time almost always believe that they remember when President Reagan got shot, or when Princess Diana died, or when the World Trade Center collapsed. Psychologists call these "flashbulb memories." Are they accurate? In 1986, the space shuttle *Challenger* exploded on live TV, killing everyone on board. The next day, the psychologist Ulric Neisser asked a group of people to write down what they had been doing when they heard the news. Two and a half years later, when Neisser asked them again, they expressed great confidence in their memories, but only 3 people out of 44 gave

answers that were accurate in their details. Meanwhile, over half of the subjects gave answers that were simply wrong. Many of our "memories" are like this.

The Memory-Links Theory says that X and Y are the same person if a chain of memories connects X and Y. But what do we mean by a chain of *memories*? We must distinguish real memories from apparent memories. Real memories are accurate representations of things that happened to us, while apparent memories include the false "recollections" that sometimes mislead us. When Y remembers doing what X did, is the memory real or apparent? Obviously, the theory cannot be referring to apparent memories. If it were, then any lunatic who "remembered" writing *Hamlet* would be William Shakespeare. So the theory must be referring to real memories—X is the same person as Y if a chain of *accurate* memories links X to Y. This seems correct, but only because it is trivial. If Y accurately remembers being X, then of course X and Y are the same person—this follows from the idea of "accurately remembering." The Memory-Links Theory thus explains "same person" in terms of "accurate memory," and it explains "accurate memory" in terms of "same person." Thus, it cannot help us understand what persons are. Bishop Joseph Butler noticed this problem in 1736: "[O]ne should really think it self-evident," he wrote, "that consciousness of personal identity presupposes, and therefore cannot constitute, personal identity."

Conclusion. The Same-Body Theory and the Memory Theory are the most obvious attempts to define personal identity over time. However, there are others. We have already mentioned the theory that emphasizes the brain. Other theories focus on personality, on causal connections, or on some combination of features. Different philosophers favor different approaches.

What is most striking in all this is what philosophers today seem to agree on. They agree that the Bundle Theory, not the Soul Theory, is the correct view of personal identity at a time. And so they think that identity over time has to do with the continuation of certain bodily or mental features, not with the ongoing existence of a soul, or an ego, or a self, or a kernel.

If these philosophers are right, then we might have to reevaluate our attitudes about life and death. Right now we care far more about ourselves than about others, and we regard our

own deaths with horror. These attitudes seem to go along with the Soul Theory: If I am a kernel—if my identity consists in a simple and indivisible entity that is *me*—then naturally I will care especially about that kernel, and I will not want it snuffed out for all eternity. However, on the Bundle Theory, both my life and my death appear different. I am just a body combined with certain mental states. There is nothing special about what I am, except for the trivial fact that no two people are exactly alike. When I die, nothing magical will happen. In the future there will be other minds and other bodies, but none of those minds and bodies will bear the right relation to me for it to be true that I am one of them.

As Derek Parfit has noted, these changes in our outlook might be liberating. We might care more about others, and we might worry less about our own mortality. Meanwhile, the question of whether the individual in heaven is you or is only your duplicate may suddenly seem trivial. There are a limited number of relevant facts: We know that you, on earth, have various thoughts, memories, and so on; and we know that the individual in heaven has similar thoughts, memories, and so on. This is all there is to know. If we ask whether the individual in heaven is *you*, and we mean to be requesting some further information, we are going to be disappointed. The person in heaven has no soul, and neither do people on earth.

CHAPTER 6

Body and Mind

How it is that anything so remarkable as a state of consciousness comes about as a result of irritating nervous tissue, is just as unaccountable as the appearance of the Djinn when Aladdin rubbed his lamp.

—T. H. HUXLEY, *LESSONS IN ELEMENTARY PHYSIOLOGY* (1866)

6.1. Descartes and Elizabeth

Like Socrates, René Descartes (1596–1650) believed that the body and the soul are different kinds of things. Using traditional terminology, Descartes said that they are different *substances*. The body is a material substance. It is like a machine, with parts that work together according to the laws of physics; and, like a machine, a body is incapable of thought and feeling. The soul, on the other hand, is an immaterial substance. It weighs nothing and has no measurable dimensions. But it does have thoughts and feelings. One's entire mental life is the life of the soul. A human being is therefore a compound entity, a combination of a body and a soul.

Mind–Body Dualism. The mind–body problem arises because there seem to be two radically different kinds of facts about human beings. On the one hand, there are *physical facts:* A woman may be five feet tall, with green eyes, a heart, a brain, and two big toes. On the other hand, there are *mental facts* about her: She has beliefs, desires, and intentions. The problem is to explain the nature of the mental facts and their relation to the physical facts.

Mind–Body Dualism is one attempt to solve this problem. This theory says that the mind and the body are different kinds of things: The body is physical, while the mind is nonphysical. So, physical facts are facts about the body, while mental facts are