Chapter 2

Regrounding the Verb “To Teach”

The dilemma described in the previous chapter concerns the assumptions built into the discussion of teaching. In this assumed context, a person called “teacher” and a child called “student” confront one another in a way that only allows for subservience or rebellion. Adults do, in fact, have responsibility for children’s lives, especially to protect small children from forces that could overwhelm them. When the child is two years old, the adult on occasion must exercise a complete controlling power (for example, against running into the street). But this power to enforce behavior — which ought to shift yearly or even daily — is at best a primitive form of teaching.

Most discussions of teaching move the power struggle out of the street and into the school. In that context, teaching becomes not the assertion of gross power but an appeal to reasonableness. Thus, in most theorizing on education, teaching is closely associated with reasonableness. The child is gradually initiated into the world of grown-up discourse.

There is much that is admirable in this ideal; I certainly would not wish to reject a move toward reasonableness. But most of life does not consist of reasonable explanations. Children along with adults are often dissatisfied with explanation alone. Radical critics of school infer from this fact that the walls of the school should come down. My own inclination would be to strengthen the school walls. But at the same time, one must ask whether there are things about teaching in school that need changing, helped by a comparison with teaching outside school. That question cannot even be asked if teaching, for all effective purposes, is equated with the activity of the schoolmaster.

Emile’s contemporary tutor finds himself (or herself) backed into a corner by students who do not necessarily trust in reasonable explanations. Rousseau’s advice to “remember you are strong and he is weak” indicates that a child in the eighteenth century could also be suspicious of reasonable explanations.

While sheer power may still control the situation with two-year-olds, what happens when the student is six-foot-three and 200 pounds? Perhaps the insinuation that “this is going on your permanent record in the principal’s office” is the exercise of power that can stabilize the situation. In any case, teaching always has been and always will be situated in a power relation. To reduce teaching to explaining is to be blind to the full context of human life in which teaching is embedded. There is nothing in itself wrong with explaining; it is just that explaining is nowhere near wide enough to be the ground for “to teach.”

A meaning for teaching that has an adult explaining things to children is attractive because it seems so clear. It is familiar territory for people who read books, and especially for people who write books. We are comfortable with the assumption that the adult teaches by giving explanations; the child learns by grasping explanations. We know that a lot of gesturing and talking at the front of a classroom may not be productive. We call this situation a “learning problem.” Nevertheless, we are sure that teaching is in process, whatever the result.

The act of teaching looked at externally takes the form of explanation. But what is the indispensable condition for the activity to be called “teaching” at all? Teaching is identified with the rational activity of an individual called “the teacher.” Behind the gestures, procedures, pronouncements, and questions, that individual determines when teaching occurs by the conscious intention to teach. That is, if teaching is severed from learning, and if teaching cannot be identified with everything a teacher does, then the one sure note of teaching is an inner, psychological act.

In most educational literature, the indispensable note for teaching is intention. To teach is to intend to teach. Such a circular statement may not seem to get very far, but it does specify what is under the teacher’s control. What teachers have to do is “make an effort” to have something happen with their pupils. The teacher can only teach — intend something; it is up to someone else to engage in another activity, that of learning.

There is an admirable modesty in this modern position. Philosophers from Aristotle to Wittgenstein, and religious thinkers, especially in the East, have counseled humility on the part of the individual human teacher. Unfortunately, however, the modern emphasis on in-
ntention takes place within an individualism that only recognizes the subjective world of the individual and the external facts of perception. Thus, the result of equating intention with teaching is not humility for teachers but a reduction of teaching to an inner, subjective world. Whether teaching has any connection to a “real world” of fact and accomplishment is beyond anyone’s control.

Although intention is obviously central to human life, its importance can be overdone. Bringing intention to center stage without playwright, scenery, and actors does not produce good drama. With teaching, as with many other activities, intention ought to emerge at the center of physical interactions and social relations. Human intention may alter what is already occurring, but one must attend to all the elements of the situation rather than only to one’s intention.

I think that the emphasis on intention is an extraordinary deficiency and naiveté in literature on teaching. Everything that follows in this chapter and throughout the book is based on the refusal to accept the naive equation of teaching with the intention to teach. Literature on teaching goes its way as if Nietzsche, Freud, and most of twentieth-century thought had not occurred. But for better and worse, the twentieth century has happened. The conscious intention of anyone cannot be taken at face value; context has to be examined. Nietzsche’s statement of a century ago un masks the trust in intention:

The suspicion has arisen that the decisive value of an action resides in precisely that which is not intentional in it, and that all that in it which is intentional, all of it that can be seen, known, “conscious,” still belongs to its surface and skin — which like every skin, betrays something but conceals still more.8

In many areas of life we have learned the point that Nietzsche (as precursor of Freud) is making here. If someone is accused of making a bigoted statement, the first line of defense is often, “But I didn’t intend to offend.” Far from ending the matter, the fact that the bigoted statement was not intended makes it the more serious. The bigotry is embedded in the subconscious and unconscious, in history and culture, in symbols and institutions. If bigotry could be eliminated just by changing people’s intentions, the task would be relatively easy. We also have to get at what is behind intention, around intention, underneath intention. Nietzsche and Freud were themselves getting behind the reasonable thinking and conscious intention of eighteenth- and nineteenth-century thinkers, making contact with an older wisdom that knew what the road to hell is paved with.

The story of the unintended is not always about the dark, duplicitous, and evil doings of human beings. In the case of teaching, most of the story is about the good and joyful teaching of human beings, teaching in which intention plays at most an indirect part. As I will describe later in this chapter, much of the daily teaching in small affairs as well as the historic teaching across the generations is not intended. Thus, the literature on education that equates teaching with intention simply eliminates most of what is taught.

An Alternative Path

If teaching is reduced to intention, then the verb “to teach” and the noun “teaching” are left without any intrinsic connection. That is, what one intends as teaching (the verb) is not necessarily what results as teaching (the noun). The teachings of Moses, Jesus, Newton, or Darwin are, we hope, what each intended to leave. The connection, however, is tenuous between what is taught and what is learned by others as teachings. Any connection between, say, Jesus’s teaching and his disciples’ learning is fortuitous.

I wish to lay out a genuine alternative to this use of language for the relation between teach and teaching, teaching and learning. But first it is necessary to establish a meaning of “to teach” which is neither reducible to the inner world of intention nor surreptitiously the work of schoolteaching. I brought in this meaning of “teaching” in the introduction via Wittgenstein. This meaning has been present in the term “to teach” for more than a thousand years back through Old English and Middle English. “To teach” has always meant and still means “to show,” and by immediate extension, to show someone how to do something. An adult explaining a math problem to a child is engaging in such “show how,” although there are hundreds of other examples that might first come to mind. “Showing how” starts with bodily gestures that invite a bodily response.

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show something that can be seen. This drawback is partly overcome by adding the word “how.” Usually one cannot show someone how to do something simply by presenting a visual pattern. To show someone how usually requires a bodily demonstration and the learner’s body in motion.

For example, if you are going to teach a child to swim, you do not show a picture of someone swimming and say, “Imitate that.” A picture of accomplishment may or may not be an encouragement to learn. But for certain, to teach a child how to swim involves putting hands under stomach or on legs, and shouting words such as “kick” or “breathe.” In ordinary English, “showing how” includes aural, oral, and tactile relations. The smallest child who is trying to tie a shoelace or drink through a straw knows exactly what he or she is asking by the words, “Show me how to do that.”

The second drawback, which is not intrinsic to the phrase but is likely to be present, is that “show how” is understood to be superficial, pertaining only to technical details. In this assumption, “show how” is usually correlated with “know how.” Although having “know how” would seem to be valuable for automobile makers, is that what philosophers, poets, or schoolteachers are about? Part of my argument is that schoolteachers, poets, and philosophers do indeed need their own form of know-how.

I would also point out that “show how” is most closely correlated with “learn how,” rather than “know how.” In “learning how” to do something, the exclusive emphasis is not knowledge or know-how. One can learn to do some physical activities in which knowledge does not seem to play a prominent role. The child who learns to swim or ride a bicycle or tie a shoelace does not necessarily have much knowledge of the activity. There is a certain amount of “know how” in doing these things but “learning how” includes more than “know how.”

My attempt to reground the meaning of “to teach” would be prevented if “showing how” were understood as merely knowing how to get things done efficiently. “Show how” can be the basis for complicated theorizing about the human condition and the whole universe. Furthermore, the really challenging problem with teaching is not only about propositions of science but about how we live. As traditional religions knew, and the ancient meaning of philosophy connote, the fundamental correlation with “show how” is “to live.” And showing someone how to live must eventually include how to die. Thus, the meaning of teach-

_**Teach-Learn**_

Do teaching and learning necessarily go together? Most educational writers in the last few decades give a negative answer to that question. They are countering what they see as the naive fallacy of an earlier era. Their point of reference is the attempt during the first half of the twentieth century to develop a “science” of teacher effectiveness.1

A movement to study the relation of teaching and learning began at the turn of the century. It surely is a worthwhile venture to examine this relation. Unfortunately, the whole movement was undermined by naive assumptions about measuring behavior and determining causality. Mountains of data were collected to discover which behaviors on the part of the (school)teacher would cause learning in the pupil.

As often happens with reactions, critics of this movement accepted the main terms of what was being criticized. In this case, the question was still posed as a causal relation between (school) teaching and learning. Because the science of education had failed to prove any causal relations between the behavior of the (school) teacher and the student’s learning, teaching and learning were declared to be totally separable activities. A more radical criticism would have asked a different kind of question. For a start, it would not have equated teaching with the activities of schoolteachers.

H. S. Broudy, one of the critics of the previous orthodoxy, wrote, “Many educators rather glibly pronounce the dictum: ‘If there is no learning, there is no teaching.’ This is a way of speaking because no educator really believes it to be true, or if he did he would in all honesty refuse to take most of his salary.” Broudy is surely right on one thing: “No learning, therefore no teaching is a way of speaking.” But so is the alternative he proposes: “As long as the effort was there, there was teaching.” The educator who prefers the first way of speaking would
presumably say, "I should get paid today because I made every effort to teach them — even though I failed. At least, I failed to teach them what I set out to teach them. Perhaps my efforts were misplaced; perhaps I taught them something different from what I had intended to teach."

What we have here are two plausible ways of speaking which may seem to differ only slightly. "I taught them (that is, I made the effort); they didn't learn" versus "I tried (that is, I made the effort) to teach them; they didn't learn." The slight difference will turn out to have profound consequences; the following chapters attempt to make this point. Most books in the philosophy of education presume that people who say that teaching and learning necessarily go together have made a naive error of logic. It is said they are guilty of a "category mistake."

Gilbert Ryle is the philosopher who is regularly invoked to explain this error. We have confused a "task verb" with an "achievement verb." We think that teaching is a cause, the effect of which is learning (that is, the students have been taught). We fail to observe that on many occasions someone is teaching but no one is learning. One of Ryle's examples is the difference between kicking (the task of the kicker) and scoring (an achievement). If kicking always led to scoring, the scores of soccer games would be much higher.8

Some writers are willing to tolerate a use of teaching as either task or achievement. John Passmore seems to accept this double meaning by saying, "I do not know of any important pedagogical confusion which in fact has this ambiguity as its source." But he also says that "it is a very important fact that there can be learning where no one teaches." I wish to deny Passmore's supposed fact that there can be learning where no one teaches. Saying that teaching and learning are separate processes is simply a debatable way of speaking. John Dewey, for example, writes, "Teaching may be compared to selling commodities. No one can sell unless someone else buys. There is the same exact equation between teaching and learning that there is between selling and buying." Dewey is not stating a fact; he is proposing a way to speak about the act of teaching.8

The rejection of the assumption that teaching and learning are separate things will lead to new questions about what teaching means and has meant for a thousand years. I begin with the premise that learning always implies teaching. In fact, the only proof that teaching exists is the existence of learning. The way to avoid the equation of teaching

and intention is to say that teaching is the showing how in the process of teaching-learning. Teaching is showing someone how to live and how to die. Someone learns these things because he or she has been taught. With that assumption, one is directed to interesting questions about the who, what, where, and how of teaching.

A more fruitful comparison to teaching is found in baseball rather than soccer. Baseball has an ambiguity with "hit" as education does with "teaching." The batter hits the ball; the hoped-for result is a hit. Baseball fans do not get confused by what seems to be a terrible "category" confusion. Whenever there is "a hit," it has followed from the batter hitting. The proof that someone has hit is the fact that there is a hit.

The guarantee does not seem to hold in the opposite direction. In most cases (seven or eight out of ten), hitting does not lead to a hit. However, there is still a connection and the batter can improve his approach to hitting and increase his number of hits. However, his intention to hit better may not do that; as every athlete knows, intention can get in the way. The cruel thing about baseball is that the batter may throw the ball 400 feet and not get credit for a hit; the next batter may hit the ball 30 feet while trying to get out of the way — and find he has a hit. The patient player, the only ones who last, know that with a smooth swing the hits will come in the course of 162 games. But on a particular occasion, the connection between "hitting" and "a hit" is controlled by providence, fate, luck, or the fallible judgment of the official scorer.

The analogy of teaching and hitting is not perfect; analogies never are. But ordinary speech about each of them recognizes both the continuity of a process and the human individual having only partial control of success within the process. Does the batter swinging a bat cause the hit? If that means that a repetition of the same action would produce the same result, the answer is no. And yet "hitting" is an indispensable element in the occurrence of "a hit."

Is teaching the cause of learning? Instead of applying what is presumed to be the obvious meaning of cause, we might reconsider causal relations in the light of teach-learn. Teaching-learning is one of life's mysteries that should make us wonder whether we understand causality. The eighteenth-century image of cause and effect — one billiard ball striking another — is obviously inadequate to describe teaching-learning. In Aristotle's sense of cause — one of the four be-causes — teaching can be spoken of as a cause. I am not advocating a return
to Aristotle's categories, though his complex pattern of meaning for "cause" may be more relevant to the late twentieth century than is the eighteenth-century meaning.

Aristotle in fact speaks of teaching-learning as an example of his agent/patient relation. That is, there is a single "actualization" at issue which can be viewed from opposite ends: "the actualization of x in y and the actualization of y through the action of x." Unless the student is learning, the teacher is not teaching. There is only one activity (or motion) and it occurs in the student. Aristotle may be overly optimistic about the ability of the individual teacher to bring about this actualizing of the learner's power. Presumably he recognized the common case where the teacher is trying to bring about this movement and fails. Nonetheless, Aristotle's linguistic premise — that teaching and learning are not two separate processes — is a helpful way to examine teaching.

If there is a single process, how can it be that the student does not learn what the teacher teaches? The answer to this question lies in the recognition that the student is always facing more than one teacher. The child learns what has been taught by one or more teachers, but it may not be the lesson that the schoolmaster is trying to teach. David Elkind comments on what is called the slow learner, "the one who does not acquire the curriculum at a 'normal' rate." Elkind notes, however, that "the slow learner is fast to learn that he is slow." Drawing his conclusion from Piaget's view of learning, Elkind writes, "Once we acknowledge that children are learning something, all of the time — even if it is not what we set out to teach them — then we have considerably broadened our options for reaching children and directing their mental growth."

I would agree and add that it is every bit as important to recognize that in addition to always learning, the child is always being taught. In the case of the "slow learner," the child does not invent or imagine something that is not there. The child learns what he or she has been taught. Plenty of things in the child's environment teach the child that he or she is slow. Some of that teaching may come from the behavior of the adult at the front of the room. In some conscious ways, and probably more so in unconscious ways, the school instructor conveys an attitude that the slow learner quickly grasps. A system of tests, grades, rewards, and punishments confirms to the child where he or she fits. Keeping the term "to teach" here is important. The child is not just learning, but is systematically being taught that he or she is a slow learner. Only by recognizing that teaching is occurring are we led to examine the teaching, and perhaps change some of it.

Who and What Teaches

The next crucial step is to free the meaning of "to teach" not only from the conscious intent of the individual teacher but also from individual human teachers. We have to examine the unconscious behavior and indirect intention of the teacher; we also have to examine the nonpersonal world, including nonhuman nature and human institutions. A kind of obsession with the interpersonal relation of teacher and student can obscure the world of teaching that the individual human teacher is trying to work with and work in. The ultimate subject of "to show someone how to do something" is the universe of living and nonliving things.

In Michael Oakeshott's essay, "Learning and Teaching," he allows that we might learn from a book or the sea, and we might be self-directed in our learning. But then he asserts, "To say that the book, the sky or the sea has taught us anything, or that we have taught ourselves, is to speak in the language of unfortunate metaphor." The author does not explain why the metaphor is "unfortunate." More basic and questionable is the dismissal of these cases as "metaphor" instead of the genuine and original sense of teaching. Each of the cases that he cites deserves comment on its own. They are not all one "metaphor." Sea and sky are perhaps of a piece and can be treated together. Books are different, and the self as teacher raises further complications.

Does it make any sense to say that the sea teaches us? Obviously if teaching requires either a human intention to teach or human explanations, then there is nothing to discuss. But if "to teach" means to show someone how to live and how to die, then the sea as teacher is not a vague figure of speech. It is just about the biggest and most powerful teacher on earth. When the sea speaks, humans had better listen. I have a friend who says that he only feels fully alive when he is in the ocean. The ocean conveys — as nothing else does — our most elemental relation to life's forces; it was not by chance that Freud called the sense of connection to all the "oceanic" feeling. At the same time, the sea's enveloping power undermines all of our feelings.
of strength and security. Few things are more soothing than the gentle roll of waves onto the shore; few things are more terrifying than a hurricane-driven sea.

There are no doubt people who would say that the sea has never taught them anything. Many people live (relatively) far from the sea and cannot engage it regularly. They cannot absorb a daily lesson, though the human race is subjected to its teaching every minute of the day. Some people are fortunate enough to listen to the sea daily. They learn from the moods of the ocean that change each day. A crowded summer beach is not to be disparaged, but to learn from the sea one has to contemplate it in winter bleakness and in all the transitions between summer and winter.

As for Oakeshott's second case—books as teachers—one does not have to reach far at all. The book is the closest we can get to most of our human teachers, living and dead. Surely, there is nothing vague or outlandish in saying, "Aristotle has taught me..." by which we mean Aristotle's books. I think Erasmus went too far when he claimed that reading the New Testament provides closer contact with Jesus than what the disciples of Jesus had who looked on him in the first century. Erasmus' point is that we get to know a person best through listening to his or her words. That is often, if not always, more enlightening than simply looking at them.12

It is significant that when referring, for example, to Plato's Republic we use the verb in the present tense: "Plato says in Book II..." Plato is dead and does not say anything, but the Plato embodied in the text is present and is still a great teacher. I would proudly say I have been taught by Aquinas and Wittgenstein, Karl Rahner and Hannah Arendt. They are real people, real teachers, though I have only their words on paper. I am surprised that Oakeshott rejects the book as teacher; even in a highly interpersonal image of teaching in which words are the medium, the book fits right into that image, just a step removed from the human teacher in the flesh.

The third case—the self as teacher of the self—does raise some problems. Here I would share a concern with Oakeshott that we maintain a consistent and logical description. The phrase "self-directed learning" is, as mentioned in chapter 1, a favorite of adult-education literature. The phrase is often used as an attack on teaching. The one who is self-directed supposedly needs no teaching.

At one end of its meaning, the term "self-directed" is practically redundant. The self is always giving direction for learning. If the self is never absent from human learning, then all learning is self-directed. At the other end of its meaning, the claim to self-directedness approaches absurdity. The claim that only I am the source of the learning is to be oblivious to all the people and books, not to mention the sea and sky, that give direction, resources, and substance to my learning.

To refer to teaching oneself could be a way of feeding this solipsism. However, I think it is more likely that by recognizing the value of self-teaching the most introverted image of learning is avoided. Without the use of the term “teaching,” the phrase "self-directed learning" is not likely to include political debates, social reconstruction, or examination of institutional power. The language of myself as teacher is at least a first step out to where the learner has to be shown something that is not immediately evident in his or her experience.

It is thus "within" the individual's experience that he or she can act as teacher. I use "experience" here as a complex relational term: passive/active, rational/nonrational, and even in some sense subjective/objective. A person can experience her- or himself as a subject of the act of teaching (I as teaching and the indirect object of the teaching (me as taught). An "outside" teacher (human or nonhuman) likely provides the beginning example, pattern, or way of doing things; the teacher within takes it from there.

It is often noted that the student cannot just passively accept teaching; the student has to respond with his or her own distinctive powers. What is less often noted is that the response includes becoming the teacher of ourselves so as to continue the pattern or fill out the design. After saying that "didactic influence" can be exerted by a person upon himself, Gilbert Ryle adds, "He can coach himself to say and to do things which are not echoes of the words in which that coaching is given."11 The "coaching" here seems to need an outside teacher to begin the process, but it is just as necessary to have the pupil then become the teacher.

The myth of the "self-taught man" does need some pointed criticism. When the phrase means that someone is an avid reader or has had the initiative to learn carpentry, TV repair, skiing, or making money in the bond market, admiration may be in order. If the phrase is used boastfully to mean he trusted no one, listened to no one, and had no need to learn from others, then the self-taught, self-made man is living an illusion that could collapse at any time. People who are truly governed from the
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The language of a person teaching him- or herself is not a vague or confused image of speech; nor is there anything unclear about a book teaching; the voice of the author reaches us not through the air but on the page. The other example discussed—the sea—may still strike the reader as metaphor or analogy.

It may seem that what we have recognized in human activity we have projected on to a screen of inanimate objects. "The sea teaches," a poet might say, but literally and scientifically we know that the ocean lacks that power.

I wish to dispute this objection on the basis that it is up to human beings to decide how to use the term "to teach." In this case, the poet is worth listening to. There is no scientific evidence against the sea teaching. The question is simply whether in this way of speaking the human race is using a confused grammar or else is recognizing a continuity of life on earth. Wittgenstein notes that we cannot say "a machine has a toothache"; the grammar of "machine games" does not allow the sentence.\(^\text{14}\) Similarly, in reference to sea games, the imposition of an entire range of human emotions can become confusing anthropomorphism. But "to teach" is a fairly controlled reference to an encounter between the ocean and a teachable being.

What I have said of the sea by way of example could be said, mutatis mutandis, of the other great forces of nature: mountains, forests, deserts, sunsets, snowstorms. Each can teach and has taught powerful lessons to those who encounter these forces. In Gary Snyder's book on wilderness, he writes, "For those who would seek directly by entering the primary temple, the wilderness can be a ferocious teaching; rapidly stripping down the inexperienced or the careless."\(^\text{15}\) Even minute forces can teach those who are willing to respond: the snowflake, the seashell, the pebble, the flower, the diamond. Jacob Needleman, in exploring religious traditions up through the Middle Ages, found it to be a constant principle that "the universe" teaches. I wish to assert nothing less.\(^\text{16}\)

The reference to the Christian Middle Ages may suggest that the idea of everything in the universe teaching is dependent on a religious interpretation. Is the real meaning of "the sea teaches" the belief that "God teaches us through the sea"? I would grant that listening to the sea for wisdom and meaning does imply what is often called a "religious" outlook. I would add that it does not imply a Christian interpretation; in fact, being taught by the sea or the mountain or especially the forest was mostly frowned on by the Christian church and survived despite the suspicion. In any case, I am not interested in turning the sea into an instrument of teaching, a kind of audiovisual aid for divine instruction. I am interested in the human-nonhuman interplay and the most comprehensive context for teaching.

It is true that we would not use "to teach" of the sea or the mountain if we did not know what it meant in human exchanges. That is true of every term we apply to inanimate objects, with some terms being more of an anthropomorphic stretch than others. To say "the volcano is angry" is taken as a figure of speech by modern people. To say "the mountain taught a lesson to the mountain climber" is to describe a precise interaction. The mountain climber learned something in response to being shown something by the mountain.

The resistance to this form of speech comes from those who have closely identified teaching and conscious intention. Presumably the mountain did not have in mind setting out to teach a lesson. Further along in this book I wish to celebrate consciousness, intention, and the power to speak. I do not wish to reduce all teaching to the way it is done by sea or mountain. However magnificent the things of nature, they do sometimes need a human voice to speak on their behalf.

Nonetheless, the relation is not all one way, with nature teaching a general context for the real teaching, human speech. It is instead a dialectical relation in which sea or mountain may provide an instructive element for understanding teach-learn in the world of living beings. Most of the teaching done by humans is—like that of sea and mountain—unintentional and nonverbal. Before getting to these human interactions, it will be helpful to consider the example of living beings other than humans, especially the humans' next of kin: the sentient animal.

One of the helpful developments of this century has been the renewed interest in studying (nonhuman) animals. The Middle Ages often argued from analogy with the animal world. The idea was not so crazy as the seventeenth, eighteenth, and early nineteenth centuries, with their radical split of "man and beast," assumed. Many terrible mis-
takes in the Middle Ages came not from the study of animals but from having facts that were entangled with myths. Conclusions about human life were often based on mistaken information. In the twentieth century it can sometimes seem almost the reverse. Our detailed knowledge of the animal or insect world can be used as an exhaustive measure of the human world. Whatever the excesses, however, the study of nonhuman animals can be very helpful in understanding such human phenomena as sexuality, aggression, and fear.

The fact of continuity between human and nonhuman animals has been widely recognized during the past century. Few people would now resist the application of the verb “to learn” to many, if not all, animals. There is endless debate about what the learning of the chimp, horse, or dolphin means, the similarity with and difference from human learning. But that animals take in a kind of knowledge and retain it for future use seems clear.

Animals learn, but are they taught? With the use of the language I have been advocating, the answer has to be yes. The case is clearest when the teacher of the animal is a human being. Some people distinguish sharply between teaching and training. They would agree that the animal trainer trains but not that he or she teaches. There will come a time to specify terms such as “to train,” but for the present, teaching as showing how embraces elements of training, drilling, and coaching. The animal trainer’s teaching methods are very restricted; nevertheless, it can be said that the animal learns a trick because it has been taught to do the trick.

A more problematic step is replacing the animal trainer with an animal. Do we still have teaching-learning when both parties are nonhuman animals? Does the mother bird teach the small bird to fly? Does one deer teach another how to get food? Does a dominant tiger teach a lesson to a would-be replacement? I think the grammar of animal games can easily bear this way of speaking. The how of teaching is restricted by the given structure of teacher and student. So what can be taught is highly limited. The mother robin cannot teach her young to build a DC-10 or even a small Lear jet. The human world is tempted to look down snobbishly on the restrictions built into one animal teaching another animal.

Despite the restrictions, animals might be able to teach human beings some important lessons. For example, the place of ritual in intraspecies conflict is a lesson that humans have yet to learn from their next of kin. But beyond such individual lessons, the animal world’s great importance to human learning is in the reminder to humans that they, too, are animals. Whatever humans try to teach, in a specifically human fashion, they can never get away from their animality. With very young children, the relation is most evident; the way to teach is to show the child how to do something—with whatever bodily gestures are needed. The principle becomes modified but it is not retracted when the pupil is 6, 16, or 46 years old.

The animal part of teaching is found in the physical continuity of teaching-learning. Animals perpetuate practices that are life-preserving without going into explanations. The mature animal performs the physical activity and at some point the young one can continue the same act. The first thing a cat does after eating is clean itself. Mother cats know that the best chance for cleaning a kitten is while it is eating. Throughout its life afterward, the cat will associate eating and cleaning. That is presumably not a lesson the mother cat intended but it is a lesson the kitten learned. Life, health, and safety tips are passed down from one generation to another.

Any theory of human teaching has to include infants. In fact, the youngest children are one of the main tests for our understanding of teaching. If someone supposes that to teach is to explain and to give reasons, he or she should test out that meaning with a two-year-old. Instead of doing that, most authors simply exclude infants from the meaning of teaching. What typically follows from this exclusion is that discussions of teaching take place without awareness of the whole physical organism and with little appreciation of the relation between speech and bodiliness.

The moral dilemma in the meaning of “to teach” arises when the words and the bodily movements separate. The moral dilemma becomes an impossible problem when teaching is equated with words alone. At the most physical level of teaching, there is usually neither moral confusion nor moral rebellion. The child’s body is receptive to learning physical skills; the way to teach the child is to tune into the rhythms of the child’s movements. Teaching a child to use eating utensils includes putting the food on a spoon and raising it to the child’s mouth and developing a ritual for the practice. So long as no violence is done to a child, each little piece of physical learning is a plus.

As the child will eventually learn about all human life, there are moments when one has to overcome immediate feelings of fear or lazi-
ness to master a complex human skill. But no teacher can simply run roughshod over the immediate feeling, even when the teacher is oneself. As a medieval prayer voiced it, "Beyond a wholesome discipline, be gentle with yourself."

Teaching oneself or someone else requires discovering the rhythms of the learner's constitution. It is in the developing of physical abilities that teach-learn is most clearly seen as a single process. The teacher and the student succeed together or they fail together. The question does not arise whether there can be teaching without learning, whether the teacher is kicking but not scoring. The ability, say, of a child to use the toilet is a power in the child. The adult has no doubt whether the teaching has succeeded; teacher and learner rejoice together at success.

The usual evidence that the child wishes to learn a physical skill is the presentation of a receptive organism. The child says, "Teach me to ride the bicycle." The teacher complies not by explaining bicycles in the living room but by running up and down the street. The child's desire to learn is shown by getting up and trying again after falling off the bicycle. The teacher's teaching is mainly to provide a temporary balance by physically holding the bicycle and occasionally saying "push," "stop," or "tip to the right." No adult comes in from the street and announces, "I taught Jimmy to ride the bicycle but he didn't learn."

If Jimmy fails to learn, there are several possible reasons to be explored within the single process of teach-learn. The deficiency may lie on the teacher's side, the learner's side, or on both sides. If Jimmy does learn, the teacher and student know that they have succeeded together. One of the overused and underexamined phrases in contemporary educational literature is "hands-on learning." Human teaching does begin with "hands on," in this case on the back of the bicycle and the backside of the bicyclist. The human mouth will have its place but the hands come first.

**Human Teaching: Example and Tradition**

In the previous section, I emphasized that at least all animals with sensory abilities teach-learn. If they are attentive, human beings might learn from the way other animals teach. The human beings are able to transcend the limitations of other animals, but the humans cannot with impunity leave behind the physical basis of all teaching-learning.

Every mammal mother, including every human mother, knows how teaching begins: place the nipple before the newborn's mouth and the learner suckles.

In the next chapter, I will describe how humans try to improve on what nature gives them for teaching. Especially through speech used in a variety of ways, the human environment can be redesigned. Before getting to that step, there is an intermediate stage between a mother suckling her young and a professor explaining black holes in the universe. There is a kind of teaching that arises in the human community and has distinct human qualities. However, for the most part, the teaching is not verbal. Insofar as the actors are human, the patterns may have a degree of consciousness and intention connected to them. Nevertheless, this kind of teaching occurs without any one individual intending to teach. In the acknowledgment at the beginning of his book, *How We Die*, Sherwin Nuland writes, "Even when I had no idea I was learning from one or another of the vast number of men and women whose lives have entered mine, they were nevertheless teaching me, usually with equal unawareness of the gift they were bestowing."

I would emphasize that this kind of teaching is not simply a deficient form of real teaching. On the contrary, all human teaching rests on two pillars: the bodily organism and silence. Speech arises in the middle of body and silence. Very often in human teaching, speech will clinch the case, but not without a silent bodily presence as precondition. Occasionally, speech is a distraction from the power of silent example. We teach by showing people how to live and how to die. At the beginning, words are unnecessary, at the end words are inadequate. Nonverbal teaching can be examined in two ways: a cross-section of the present gives us teaching by example; looking at the flow of the generations gives us teaching by tradition.

Teaching by example, like parental teaching, is simultaneously praised and dismissed in treatises on teaching. John Locke would seem more positive than most in asserting, "But of all the Ways whereby children are to be instructed, and their Manners formed, the plainest, easiest and most efficacious is, to set before their Eyes the Examples of those things you would have them do or avoid." A close reading of this text, however, reveals that Locke is starting with the question, "How does an adult instruct a child?" His answer is that examples are the best instrument of instruction. Although I will later affirm the great value of using examples in several forms of verbal instruction,
Locke's language actually undermines a fuller meaning of "teaching by example."

The most effective teachers do not begin by setting out examples, but by being examples. They may or may not be instructors of anything. Their lives include examples of what to do, though the multiplicity is usually rooted in a single example: this is the way to live and to die. For such a person, "to set out examples" (even when the example is from one's own life or perhaps especially when it is from one's own life) is far too directive of other people. Here we have one of the great paradoxes of human life: not only is intention not the essence of teaching, but some of the most important teaching can only occur when it is not intended. The wise, talented, disciplined, accomplished person is aware that others will be inspired by his or her life. What any individual on any occasion may be inspired to do is not up to the teacher to determine.

Some interviewer is always asking a prominent athlete, "Do you think you are a role model?" The athlete is usually confused or embarrassed by the question. If he or she says yes, it sounds arrogant; if he or she says no, it sounds like a shirking of responsibility. The athlete's problem is not his or her fault. The question is not deserving of an answer. Charles Barkley caught the attention of the country with a statement in a Nike commercial, "I am not a role model. I am not paid to be a role model. I am paid to wreak havoc on the basketball court." Not surprisingly, people lined up in support of or in denunciation of Barkley's statement. Unfortunately, not much gets clarified here about the power of teaching by example. The simple fact is that a Charles Barkley or a Michael Jordan is a powerful teacher. A person from any celebrated profession can provide an inspiring example of how to discipline personal talent and achieve brilliant results.

Barkley's real argument should have been with the stilted phrase "role model." Instead, he used the phrase in the punchline of the statement: "Parents should be role models." Of course, a parent can model the role of parent for his or her children, but that is hardly an encompassing statement of what children need. Children need good example from adults; some of that can come from celebrities in sports or in music; much more of it should come from parents, schoolteachers, politicians, police officers, and other adults that the child encounters.

The phrase "role model" is assumed to be clear because it is thrown around so frequently. If one wishes to appreciate teaching by example, then neither "role" nor "model" is particularly helpful. "Role" is too narrow for what is taught; "model" is too rigid for how to teach. If a social scientist wishes to talk about role models, it may make sense in some contexts. But role models is not the place to begin exploring how human beings teach one another every day. A study of black youngsters in the Bronx of the 1950s found that the majority wished to have the same job: center fielder on the Giants. That was Willie Mays as role model. Unfortunately, having a "role model" does not just mean wishing to be a ballplayer, but to be center fielder on the Giants or small forward on the Bulls. That kind of teaching — including the social science jargon that becomes part of it — is mostly a cruel hoax. It is no help to youngsters and adults who need people to admire, to trust, and to emulate. Millions of young black men in the country could learn something from Charles Barkley; but what they should not aspire to learn from him — and he could not teach 99.9% of them — is how to be a forward on the Suns.

We all depend on human teaching every day, people doing things in our presence which inspire us to believe that there is goodness in the world, that one can say yes to living another day. And most of the time, the smile, the gesture of politeness or care, is all the more powerful as teaching because it is not intended as teaching. There is no moral dilemma here; the learner is free to take whatever he or she wishes to take and is able to take from the available teaching.

Consider this example of example as teacher from Malcolm X's autobiography. He was in Jeddah on the way to Mecca in 1964; in the crowded conditions of the city, a government official gave up his own room so Malcolm could sleep. Malcolm, reflecting on the incident, writes, "That white man... related to Arabia's ruler, to whom he was a close adviser, truly an international man, with nothing in the world to gain, had given up his suite for me, for my transient comfort... That morning was when I first began to reappraise the white man." Mal- colm X's life was profoundly changed by the new situation he was in, by the physical, historical, and social influences all around him. But he nonetheless pinpoints the connection between a simple act of kindness and the beginning transformation of his thinking on race.

 Writers in education get tangled up in their own language when they refer to this simple, but all important phenomenon, teaching by example. It does not fit their definition of teaching; unfortunately, however, that does not lead them to question if their definition is wrong. For
example, Page Smith, in *Killing the Spirit*, writes that the “true person” must have love: “None of us is worthy of it, and yet all of us must have it to live. It can’t be taught.” Two sentences later in the same paragraph, Smith writes, “Teachers who love their students are of course by that very fact teaching their students the nature of love, although the course may in fact be chemistry or computer science.”

If Smith decided by the end of the paragraph that “of course” love can be taught, I think he should have gone back two sentences and changed the flat assertion that “it can’t be taught.” The contradiction may seem minor, but it is in a chapter entitled “Teaching” in a book that caustically attacks the lack of critical-minded thinking in the university of today. If one writes a chapter on teaching, there ought to be some consistency in the meaning of “to teach.”

The same confusion regularly shows up in essays with the title “Can Virtue Be Taught?” Nearly always the answer is no, with appeals made to thinkers from Socrates to Kohlberg. And yet if one begins by not unduly limiting the meaning of “to teach,” the obvious answer is yes. People do learn to be virtuous; they do so having been taught to be virtuous. How does that happen? Aristotle supplies the simple, clear answer: the way to become virtuous is to grow up in a virtuous community. Virtue is what is taught all day long by virtuous members of the community.

Aristotle’s answer is one of those circular-sounding statements that could be ridiculed once it has been taken out of its matrix of related assumptions about community, teaching, virtue, and causality. What Aristotle is getting at is a wisdom that goes back millennia. His philosophical formulation draws upon principles that were practically self-evident for Jewish, Christian, Buddhist, Muslim, and other religious groups. The way to get good people is by providing good example. Good example does not guarantee good students, but the absence of good example will assuredly guarantee a deficiency of learning.

I caution, once more, that this principle does not mean “to set out good examples.” That procedure comes later. Teaching by example means first and mainly living with people and showing, by the way one lives, a “way of life.” I think it is amazing that, despite the vast differences among religions, they are in nearly perfect agreement on this point: the way people learn goodness or virtue is by the presence of good, virtuous people.

The principle of teaching by community example is perhaps clearest in the case of a small child learning to speak his or her native language. The child is able to pick out the sounds of human speech and respond with similar patterns of sound. Without any explanations of grammar or syntax (they should come later) the child grasps the structure of speech and joins the human conversation. Once the pattern is in place, the child becomes a voracious names, with an explosion of “What’s the name for that?” It is possible to say, “No one teaches the child to speak.” That can mean there are no teachers. A more helpful statement of the situation is, “No one teaches the child to speak” because (nearly) everyone and everything teaches the child.

Steven Pinker, in *The Language Instinct*, overstates his case by saying, “First, let us do away with the folklore that parents teach their children language... Many parents (and some child psychologists who should know better) think that mothers provide children with implicit lessons. These lessons take the form of a special speech variety called Motherese.” Pinker’s object of scorn here is Motherese. While he may be right on that point, he fails to give credit to mothers (and fathers, sisters, brothers, uncles, television programs, and numerous other teachers) for teaching the child to speak. Parents teach their children not by “lessons” but by conversing with each other and speaking with the child.

What could be more obvious: the way to speak English is to grow up in an English-speaking community. The practice of English by its users and teachers is an invitation to speak English. The child for survival’s sake accepts the invitation. We could improve the quality of English spoken and so improve the teaching. But even with good examples in the environment, an individual may for a myriad of reasons not learn well. These learning problems are issues to be explored. For the moment, however, it should be clear that the way not to teach language is by sitting a person in a chair with a list of words and rules of grammar to memorize. Language teachers in schools have a very important job in improving spoken and written language, but classrooms are poor places for starting to learn how to speak a language.

The very young child, I said above, is one of the best tests for the meaning of “to teach.” The infant is thrust into the middle of human bodies, human institutions, and nonhuman nature. If there is no violent interference, the child can learn from all of these sources. The burden of teaching a child does not fall on one human individual; no one should have to bear that responsibility. The primary bearer is the
"community," a much overused and abused word, but still indispensable. A community is a small group of people getting on with life: birth, feeding, thinking, talking, planning, aging, dying. The child learns to live by doing what the community does. Throughout life the individual continues to learn by doing what many overlapping communities do.

Groups of people and their work get taken up into human “institutions” that also become powerful teachers. Large institutions are very suspect in our day, as well they might be. Simple flight from them, however, does not make them go away or lessen their teaching influence. Institutions are in need of continual reform or else their teaching goes sour.

Our concentration on personal relations tends to reduce teach-learn to the question of individual teacher and (ideally) one student. An awareness of group process only gets us one small step beyond the tutorial image. But teaching goes on every day insofar as communities and institutions function. And although communities can become introverted and institutions can become corrupt, the learning of the human race is nevertheless passed down over the centuries by being embodied in communal rituals and institutional arrangements. Most of this story is for the next chapter in which we consider teaching by design.

My focus in this chapter has been on foundational forms of teaching that occur with little or no conscious intent, with few, if any, human words. One last aspect of this mostly unintended and nonverbal teaching provides a bridge to teaching by design. I refer to tradition. It is a term that does not have good standing in educational writing. Indeed, since the late eighteenth century, education has often been posed as the opposite of tradition. “To teach” often means to free people from tradition, which is assumed to be a collection of myths, superstitions, and prejudices. Some kinder words have been said about tradition in recent decades. On the whole, however, tradition is taken to be the stone that rational explanation has to dislodge.

How schools interact with tradition is a major concern of chapter 8. Here I am interested in highlighting that tradition teaches and how tradition teaches. The fact that tradition does teach follows from the meaning of “to teach” as “show someone how to live and to die.” Fortunately, for all of us, tradition has continued to supply us with wisdom about living and dying so that each generation does not have to rely solely on its own insights.

The flow of tradition’s teaching is the most interesting part. I said earlier that all teaching begins with “hands on” (one on the bicycle, one on the backside; one under the stomach, one moving the legs). Not by accident the etymological meaning of “tradition” is “to hand on.” The term often connoted a conspiratorial whispering in the ear. What was handed on was secret teaching that the master could not entrust to writing. Tradition is aural, oral, and tactile, even in the era, or especially in the era, when writing dominates. At the beginning “oral tradition” was redundant, “written tradition” a near contradiction.

Eventually, the act of handing on secret wisdom does produce written statements that are codified. The name “tradition” slides over to refer to what is the result of tradition. What is often called “tradition” is the corpse that is left. But even when tradition appears to be moribund, when tradition(s) become the name of an oppressive code of conduct, the revolutionary power of tradition does not disappear. The oral/aural/tactile basis of tradition is still a threat to established power.

The most obvious example of tradition has for most of history resided in what mothers do with infants. (The father still remains an outsider to some of the secrets.) The mother handles the child, conveying through touch the experience of human care, love, and security. Speech to very young children is mostly in the form of repetitious melodies and ritual sayings. The infant does not grasp the meaning of individual words, but clearly it responds to the tactile and the oral. This basic trust, as Erik Erikson calls it, is the basis for all teaching to come.26

I noted earlier Jane Martin’s discovery that what mothers do is routinely excluded from the meaning of teaching. Beyond saying that the problem involves bias against women, what can we say about the exclusion of tradition’s teaching from the meaning of “to teach”? An immediate inclination is to think that educational writers simply do not think the mother’s teaching is important enough or powerful enough to qualify as teaching. I would suggest that the real reason is just the opposite. The mother’s way of teaching—handing on—is so powerful and frightening to anyone in charge of things that this revolutionary power has to be excluded from the meaning of “to teach.”

All teaching is showing how. If you show a child with your hands how to do something, there is a tremendous satisfaction without any feeling of guilt. There is almost never a moral dilemma in silently doing something that the child is gradually able to continue doing. If the child is later told something that does not agree with this learning, the verbal teaching will almost certainly fail. The schoolmaster is awed and
frightened by maternal teaching because in any showdown mother’s way will win.

The human race, of course, does not remain two years old. Even in the generational act of handing on, there is design to the process. Spoken and written words have to protect the tradition from internal atrophy and external attack. We do not “hand on tradition”; rather, tradition is the handing on; we hand on whatever we can hand on of life. For the process to be humanly rich, we need to put our minds and mouths to giving shape and form to whatever it is we are trying to hand on.

Chapter 3

Teaching by Design

The first appropriate thing for a chapter with this title is to indicate its design. I explore in this chapter the way that human beings teach by design. The phrase has a double meaning. To teach by design can refer to a conscious human intention in contrast to the unintentional, or at least indirect, way to teach described in the previous chapter. To teach by design can also refer to the design or designs that the teacher uses. The person who sets out to teach someone something inevitably attempts to impose some design. What the teacher discovers in this attempt is that every human design is a redesign. The best that a teacher can do is work with student and environment to improve the present design.

My design in this chapter is to present some relevant distinctions of language that will help to deal with such ethically questionable phrases as “impose some design.” I will cite some authors and the metaphors they use for describing what a person does who wishes to help others by teaching them. I try to provide examples, some brief and others extended, of people who teach others by design and what some of the designs are.

The material I have to work with in this chapter, and throughout the book, is words. I design, or rather redesign, language in the hope of evoking within the reader images and understanding. Words are fragile material for the design of meaning. When Wittgenstein chose examples of the design of meaning, he often turned for help to architectural blueprints or Western movies. This chapter does not have accompanying blueprints or videotape, but such referents are needed if my sentence designs are to convey the process of teaching by design.

In the previous chapter, I described teaching-learning as a single process. I did not prove that to be the case; I assumed the language of such a description in order to have a richer context in which to explore teaching. The value of such an assumption still has to be shown