

## INTRODUCTION

### Meaning Is More Than Words and Deeper Than Concepts

The central thesis of this book is that what we call “mind” and what we call “body” are not two things, but rather aspects of one organic process, so that all our meaning, thought, and language emerge from the aesthetic dimensions of this embodied activity. Chief among those aesthetic dimensions are qualities, images, patterns of sensorimotor processes, and emotions. For at least the past three decades, scholars and researchers in many disciplines have piled up arguments and evidence for the embodiment of mind and meaning. However, the implications of this research have not entered public consciousness, and so the denial of mind/body dualism is still a highly provocative claim that most people find objectionable and even threatening. Coming to grips with your embodiment is one of the most profound philosophical tasks you will ever face. Acknowledging that every aspect of human being is grounded in specific forms of bodily engagement with an environment requires a far-reaching rethinking of who and what we are, in a way that is largely at odds with many of our inherited Western philosophical and religious traditions.

To see what this reconceptualization means, consider this: The best biology, psychology, cognitive neuroscience, and phenomenology available today teach us that our human forms of experience, consciousness, thought, and communication would not exist without our brains, operating as an organic part of our functioning bodies, which, in turn, are actively engaged with the specific kinds of physical, social, and cultural environments that humans dwell in. Change your brain, your body, or your environments in nontrivial ways, and you will change how you experience your world, what things are meaningful to you, and even who you are.

#### THE ILLUSION OF DISEMBODIED MIND

Contrast this embodiment hypothesis with our commonsense view of mind. Although most people never think about it very carefully, they live their lives assuming and acting according to a set of dichotomies that distinguish mind from body, reason from emotion, and thought from feeling. Mind/body dualism is so deeply embedded in our philosophical and religious traditions, in our shared conceptual systems, and in our language that it can seem to be an inescapable fact about human nature. One pervasive manifestation of this dualism in many of our ethical, political, and religious practices is the assumption that we possess a radically free will, which is assumed to exist apart from our bodies and to be capable of controlling them. We postulate a “higher” self (the rational part) that must seek to control the “lower” self (body, desire, emotion). We assume that each of us has an inner core (a “true self” or a “soul”) that transcends our bodily, situated self. We buy into the notion of thinking as a pure, conceptual, body-transcending activity, even if we realize that no thinking occurs without a brain.

This pervasive illusion of disembodied mind, thought, and meaning is beautifully explored and criticized by the American poet Billy Collins, who unmask our dream of pure thought by showing that we can think and imagine only through our bodies.

## PURITY

My favorite time to write is in the late afternoon,  
weekdays, particularly Wednesdays.  
This is how I go about it:  
I take a fresh pot of tea into my study and close the door.  
Then I remove my clothes and leave them in a pile  
as if I had melted to death and my legacy consisted of only  
a white shirt, a pair of pants and a pot of cold tea.

Then I remove my flesh and hang it over a chair.  
I slide it off my bones like a silken garment.  
I do this so that what I write will be pure,  
completely rinsed of the carnal,  
uncontaminated by the preoccupations of the body.  
Finally I remove each of my organs and arrange them  
on a small table near the window.  
I do not want to hear their ancient rhythms  
when I am trying to tap out my own drumbeat.

Now I sit down at the desk, ready to begin.  
I am entirely pure: nothing but a skeleton at a typewriter.

I should mention that sometimes I leave my penis on.  
I find it difficult to ignore the temptation.  
Then I am a skeleton with a penis at a typewriter.  
In this condition I write extraordinary love poems,  
most of them exploiting the connection between sex and death.

I am concentration itself: I exist in a universe  
where there is nothing but sex, death, and typewriting.

After a spell of this I remove my penis too.  
Then I am all skull and bones typing into the afternoon.  
Just the absolute essentials, no flounces.  
Now I write only about death, most classical of themes  
in language light as the air between my ribs.

Afterward, I reward myself by going for a drive at sunset.  
I replace my organs and slip back into my flesh  
and clothes. Then I back the car out of the garage  
and speed through woods on winding country roads,  
passing stone walls, farmhouses, and frozen ponds,  
all perfectly arranged like words in a famous sonnet.

Ah, if only mind could float free of its carnal entanglements, thinking pure thoughts of things certain, eternal, and good. But that is a dysfunctional dream! It is our organic flesh and blood, our structural bones, the ancient rhythms of our internal organs, and the pulsing flow of our emotions that give us whatever meaning we can find and that shape our very thinking. Collins humorously reminds us that if we want to write great love poems (or any poems), we had better retain not just our sexual organs, but also our whole fleshy body, with all of its desires, emotions, and moods.

## HOW THE BODY HIDES OUT

René Descartes, one of the most famous mind/body dualists in the Western philosophical

tradition, argued that just by clear thinking, we can indubitably see that mind and body are two radically different and distinct kinds of thing:

I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion, and I deny that it has anything which belongs to the nature of a mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills, and so on, even though I deny that it has any of the attributes which are contained in the idea of a body. This would be quite impossible if there were not a real distinction between the mind and the body. (Descartes 1641/1984, 86)

Simply by knowing that I exist and seeing at the same time that absolutely nothing else belongs to my nature or essence except that I am a thinking thing, I can infer correctly that my essence consists solely in the fact that I am a thinking thing. It is true that I may have (or, to anticipate, that I certainly have) a body that is very closely joined to me. But nevertheless, on the one hand I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand I have a distinct idea of body, in so far as this is simply an extended, non-thinking thing. And accordingly, it is certain that I am really distinct from my body, and can exist without it. (Descartes 1641/1984, 54)

Why should it seem so obvious to most people that mind and body are two, not one? One important reason is that our lived experience itself reinforces an apparently inescapable dualistic view of mind versus body. We don't have to work to ignore the working of our bodies. On the contrary, our bodies hide themselves from us in their very acts of making meaning and experience possible. The way we experience things appears to have a dualistic character. Ironically, it is the nature of our bodies and brains that gives rise to this experience of a split (mental plus physical) self.

Drew Leder (1990), following the groundbreaking work of Maurice Merleau-Ponty (1962), has catalogued the many ways in which the successful functioning of our bodies requires that our bodily organs and operations recede and even hide in our acts of experiencing things in the world. One of the chief ways the body hides from our conscious awareness is a result of what Michael Polanyi (1969) called the "from-to" character of perception. All our acts of perception are directed to or at what is experienced and away from the body doing the perceiving. This is what phenomenologists call the intentionality of the mind. In Polanyi's words, "Our body is the only assembly of things known almost exclusively by relying on our awareness of them for attending to something else. . . . Every time we make sense of the world, we rely on our tacit knowledge of impacts made by the world on our body and the complex responses of our body to these impacts" (1969, 147–48).

For example, our acts of seeing are directed toward and focused on what we see. Our intentionality seems to be directed "out there" into the world. The mechanisms of our vision are not, and cannot be, the focus of our awareness and attention. We are aware of what we see, but not of our seeing. The bodily processes hide, in order to make possible our fluid, automatic experiencing of the world. As Leder says, "It is thus possible to state a general principle: insofar as I perceive through an organ, it necessarily recedes from the perceptual field it discloses. I do not smell my nasal tissue, hear my ear, or taste my taste buds but perceive with and through such organs" (1990, 14). In a discussion of the "ecstatic body," Leder names this perceptual hiding of the body "focal disappearance" of the specific bodily organs and activities of perception.

In addition to focal disappearance of our perceptual organs, there is also a necessary "background disappearance" of other processes and activities that make perception possible, processes of which we are seldom, if ever, aware. This includes such things as the complex of bodily adjustments and movements that make it possible for a certain perception to occur. I see with my eyes (which undergo focal disappearance), but that seeing would be impossible without those eyes' existence in a body that makes a number of fine adjustments, such as holding the head in a certain way, keeping the body erect and pointed in a certain direction, and moving the body in ways that ensure a clear line of sight.

When I reach out to pick up a cup, I am not aware of the multitude of fine motor adjustments or the ongoing cooperation of hand and eye that make it possible for me to locate and touch the handle of the cup.

Emphasizing dimensions of nonconscious bodily processes, Shaun Gallagher has usefully distinguished between our body image, which involves “a system of perceptions, attitudes, and beliefs pertaining to one’s own body,” and our body schema, which is “a system of sensory-motor capacities that function without awareness or the necessity of perceptual monitoring” (Gallagher 2005, 24). It is our body schema that hides from our view, even while it is what makes possible our perception, bodily movement, and kinesthetic sensibility. Our body schema is “a system of sensory-motor functions that operate below the level of self-referential intentionality. It involves a set of tacit performances—preconscious, subpersonal processes that play a dynamic role in governing posture and movement” (ibid., 26). As Gallagher documents with great care and insight, it is only when some breakdown occurs in our body schema, such as through traumatic bodily injury or a lesion to some sensorimotor area of the brain, that we even become aware that we have a body schema.

Another major type of bodily disappearance is based on the recession of the internal organs and processes throughout nearly all of our experience. Without these visceral processes performed by the respiratory, digestive, cardiovascular, urogenital, and endocrine systems, we would die, and so, in an almost trivial sense, they provide conditions for the very possibility of experience. More significantly, these systems underlie some of our most powerful experiences, even though we are almost never aware of their operations, and some of them are simply inaccessible to conscious awareness. To cite just one salient example, our emotional experience depends on complex neuronal and endocrine processes, although we typically cannot have a felt awareness of those processes. The result is that we feel a feeling, but we never feel our internal organs generating that feeling. Joseph LeDoux (2002) and his colleagues have studied the crucial role of the amygdala in the feeling of fear. The amygdala receives neural information about a certain stimulus and controls the release of hormones that create effects in many organs and systems, such as increased heartbeat, changes in respiration, and the activation of certain defense responses. We are not, of course, ever aware of the operations of our amygdala, but only of the systemic organic effects of those operations.

In short, the body does its marvelous work for the most part behind the scenes, so that we can focus on the objects of our desire and attention. We can be directed out into our world and be about the business of affecting the character of our experience so that we may survive and flourish precisely because our “recessive body” is going about its business.

The principal result of these forms of bodily disappearance is our sense that our thoughts, and even our feelings, go on somehow independent of our bodily processes. Our body-based experience reinforces our belief in disembodied thought. Leder summarizes the bodily basis of our latent Cartesianism:

It is the body’s own tendency toward self-concealment that allows for the possibility of its neglect or deprecation. Our organic basis can be easily forgotten due to the reticence of the visceral processes. Intentionality can be attributed to a disembodied mind, given the self-effacement of the ecstatic body. As these disappearances particularly characterize normal and healthy functioning, forgetting about or “freeing oneself” from the body takes on a positive valuation. (Leder 1990, 69)

There are disturbing overtones to the dream of “freeing oneself from the body,” as if this would actually be a good thing to strive for! It reinforces the dangerous idea, so deeply rooted in Western culture, that purity of mind entails rising above one’s bodily nature. Immanuel Kant famously argued for a “pure reason” that generates formal structures that are supposedly not based on anything

empirical and thus are in no way dependent on our embodied, phenomenal selves. Kant also claimed that moral laws could issue only from “pure practical reason,” completely free of feeling, emotion, or bodily constraints. A good will, on Kant’s view, is a pure will, one that rises above the demands of our bodily desires and answers only to the commands of pure moral reason. Within most Christian traditions, a person’s “true” self is not of this world of the flesh, even though it must temporally dwell within that world. In Kantian terms, this is formulated as the view that we most essentially are rational egos—transcendent sources of judgments, spontaneous free acts, and universally binding moral imperatives.

In short, the idea of a fundamental ontological divide between mind and body—along with the accompanying dichotomies of cognition/emotion, fact/value, knowledge/imagination, and thought/feeling—is so deeply embedded in our Western ways of thinking that we find it almost impossible to avoid framing our understanding of mind and thought dualistically. The tendency of language to treat processes and events as entities reinforces our sense that mind and body must be two different types of thing, supporting two very different types of properties. For example, just asking the question “How are body and mind one, not two?” frames our whole conception of the relation dualistically, since it presupposes that two different kinds of things must somehow come together into one. Consequently, anyone who is trying to find a way to recognize the unity of what Dewey called the “body-mind” will not have the appropriate vocabulary for capturing the primordial, nonconscious unity of the human person. Even our language seems to be against us in our quest for an adequate theory of meaning and the self.

#### **MEANING RUNS DEEPER THAN CONCEPTS AND PROPOSITIONS**

In challenging our inherited mind/body dualism, my real target will be the disembodied view of meaning that typically accompanies such a dualism. According to the view of “mind” and “body” as two different substances, structures, or processes, meaning is something that belongs first and foremost to words. Linguistic meaning (the meaning of words and sentences) is taken to be based on concepts and their capacity to be formed into sentence-like thought units that philosophers call propositions. I am going to argue that this notion of meaning, which underlies much mainstream philosophy of mind and language, is far too narrow and too shallow to capture the way things are meaningful to people. Any philosophy based on such an impoverished view of meaning is going to over-intellectualize many aspects of human meaning-making and thinking.

The dominant view of meaning and thought that I will be challenging is what I will call the conceptual-propositional theory of meaning. Here is a capsule summary of its key points:

#### **THE CONCEPTUAL-PROPOSITIONAL THEORY OF MEANING**

Sentences or utterances (and the words we use in making them) alone are what have meaning. Sentences get their meaning by expressing propositions, which are the basic units of meaning and thought. Propositions typically have a subject-predicate structure. Our language and thought are thus meaningful to the extent that they express propositions, which allow people to make assertions about the way the world is and to perform other speech acts, such as asking questions, issuing commands, pleading, joking, expressing remorse, and so on. Our capacity to grasp meanings, and our capacity for reasoning, depends on our conscious use of symbolic representations in the mind that somehow can relate to things outside the mind. These symbolic representations (usually thought of as concepts) are organized into meaningful propositional structures via formal rules of syntax, and then the propositions are organized into thoughts and arguments via formal rules of logic. According to this

objectivist semantics, neither the syntactic rules, nor the logical relations, nor even the propositions themselves have any intrinsic relation to human bodies.

The key components of disembodied views that I want to challenge are the seriously mistaken claims that meaning and thought are exclusively conceptual and propositional in nature and that the apparatus of meaning, conceptualization, and reasoning is not intrinsically shaped by the body, even if these processes have to occur in a body. I will argue in [chapter 2](#) that if babies are learning the meaning of things and events, and if babies are not yet formulating propositions, then meaning and understanding must involve a great deal more than the ability to create and understand propositions and their corresponding linguistic utterances. Obviously, I do not mean to deny the existence of propositional thinking, but I see it as dependent on the nature of our embodied, immanent meaning. In short, contrary to the fundamental claim of Gottlob Frege (1892/1970), the father of modern analytic philosophy, propositions are not the basic units of human meaning and thought. Meaning traffics in patterns, images, qualities, feelings, and eventually concepts and propositions.

One popular strategy for acknowledging that there is nonpropositional meaning while still privileging the propositional is to claim a rigid dichotomy between two fundamentally different kinds of meaning: (1) descriptive (cognitive) meaning, and (2) emotive (noncognitive) meaning. Once this illusory demarcation was made, it was easy for philosophers of language like A. J. Ayer (1936) and Charles Stevenson (1944) to retain an exclusive focus on the conceptual/propositional as the only meaning that mattered for our knowledge of the world. So-called emotive meaning had no place in science or any allegedly rigorous, empirically testable modes of knowing.

I am going to argue that the cognitive/emotive dichotomy does more harm than good. It is a mistake to banish emotional aspects of meaning to the nether land of the merely emotive and then to claim that real meaning is cognitive meaning of the conceptual/propositional sort. Instead, I will be arguing for the central role of emotion in how we make sense of our world. There is no cognition without emotion, even though we are often unaware of the emotional aspects of our thinking.

The idea that meaning and understanding are based solely on propositional structures is problematic because it excludes (or at least hides) most of what goes into the ways we make sense of our experience. In striking contrast to this conceptual-propositional view of meaning and knowledge, a substantial body of evidence from the cognitive sciences supports the hypothesis that meaning is shaped by the nature of our bodies, especially our sensorimotor capacities and our ability to experience feelings and emotions. If we look at prelinguistic infants and at children who are learning how their world works and what things mean to them, we will find vast stretches of embodied meaning that are not conceptual and propositional in character, even though they will later make propositional thinking possible.

In the account of embodied meaning that I am developing in this book, I am using the term meaning in a broader sense than is typical in mainstream Anglo-American philosophy of language and mind. I seek to recover most of the resources for meaning-making that are ignored in the writings of influential philosophers such as Quine, Searle, Davidson, Fodor, Rorty, and many others. In addition to the standard notion that meaning involves the conscious entertaining of concepts and propositions, I am focusing on mostly nonconscious aspects of a person's ability to meaningfully engage their past, present, and future environments. I am proposing what I call

#### THE EMBODIED THEORY OF MEANING

Human meaning concerns the character and significance of a person's interactions with their

environments. The meaning of a specific aspect or dimension of some ongoing experience is that aspect's connections to other parts of past, present, or future (possible) experiences. Meaning is relational. It is about how one thing relates to or connects with other things. This pragmatist view of meaning says that the meaning of a thing is its consequences for experience—how it “cashes out” by way of experience, either actual or possible experience. Sometimes our meanings are conceptually and propositionally coded, but that is merely the more conscious, selective dimension of a vast, continuous process of immanent meanings that involve structures, patterns, qualities, feelings, and emotions. An embodied view is naturalistic, insofar as it situates meaning within a flow of experience that cannot exist without a biological organism engaging its environment. Meanings emerge “from the bottom up” through increasingly complex levels of organic activity; they are not the constructions of a disembodied mind.

The semantics of embodied meaning that is supported by recent research in the cognitive sciences provides a naturalistic perspective, one that makes no explanatory use of any alleged disembodied or “purely rational” capacities. A naturalistic theory of meaning takes as its working hypothesis the idea that all of our so-called higher cognitive faculties (e.g., of conceptualization and reasoning) recruit cognitive resources that operate in our sensorimotor experience and our monitoring of our emotions. The guiding assumption for such a naturalistic semantics is what John Dewey called a “principle of continuity.”

#### DEWEY'S PRINCIPLE OF CONTINUITY

The primary postulate of a naturalistic theory of logic is continuity of the lower (less complex) and the higher (more complex) activities and forms. The idea of continuity is not self-explanatory. But its meaning excludes complete rupture on one side and mere repetition of identities on the other; it precludes reduction of the “higher” to the “lower” just as it precludes complete breaks and gaps. . . . What is excluded by the postulate of continuity is the appearance upon the scene of a totally new outside force as a cause of changes that occur. (Dewey 1938/1991, 30–31)

An embodied view of meaning looks for the origins and structures of meaning in the organic activities of embodied creatures in interaction with their changing environments. It sees meaning and all our higher functioning as growing out of and shaped by our abilities to perceive things, manipulate objects, move our bodies in space, and evaluate our situation. Its principle of continuity is that the “higher” develops from the “lower,” without introducing from the outside any new metaphysical kinds.

I will be using the terms embodied meaning and immanent meaning to emphasize those deep-seated bodily sources of human meaning that go beyond the merely conceptual and propositional. Structures and dimensions of this immanent meaning are what make it possible for us to do propositional thinking. But if we reduce meaning to words and sentences (or to concepts and propositions), we miss or leave out where meaning really comes from. We end up intellectualizing human experience, understanding, and thinking, and we turn processes into static entities or properties. I will therefore be suggesting that any philosophy that ignores embodied meaning is going to generate a host of extremely problematic views about mind, thought, and language. I want to suggest, in anticipation of my arguments to come, some of the more important consequences of taking seriously a nondualistic account of mind and personal identity and recognizing the bodily basis of human meaning.

#### PHILOSOPHICAL IMPLICATIONS OF THE BODY-MIND AND OF BODY-BASED MEANING

This fact of embodied mind has several profound consequences for who you are and how you

should live your life: it denies a radical mind/body separation, sees meaning, imagination, and reason as embodied, denies radical freedom, ties reason to emotion, and requires an embodied spirituality. Here are some of the more striking implications of taking our embodiment seriously:

1. There is no radical mind/body separation. A person is not a mind and a body. There are not two “things” somehow mysteriously yoked together. What we call a “person” is a certain kind of bodily organism that has a brain operating within its body, a body that is continually interacting with aspects of its environments (material and social) in an ever-changing process of experience. As I will explain later, we designate certain dimensions of these ongoing experiential processes “mind” and other dimensions “body,” but we do this only reflectively and for very specific purposes that we have in trying to make sense of our experience. In short, “mind” and “body” are merely abstracted aspects of the flow of organism-environment interactions that constitutes what we call experience. When your “body” ceases to function as a living, organic whole of coordinated activities and processes, you lose your “mind.” It doesn’t just go away somewhere and hide. Rather, it ceases to exist. If there is life after death, we can’t know what it is like, but strong neuroscientific evidence suggests that it could not involve the kind of conscious experience and meaning-making that is so distinctive of humans—unless, of course, this life after death involved the resuscitation of our human brains, bodies, and physical and social environments.

This claim is based on the idea that we are beginning to understand how our consciousness and our experience depend on our brain operating within our body and our body operating within our world, so that when our bodies cease to function, in a global, devastating fashion, we lose the capacity for experience. This realization has led many people to reject the idea of disembodied soul and life after death, and to focus instead on the importance of living rightly and well in the world as we know it.

Of course, no one could ever disprove (or prove, for that matter) the existence of a disembodied soul, which must always remain a possible hypothesis. William James, who was a pioneer in the scientific study of mind and is famous for revealing the workings of the body within our thinking and feeling, always insisted that disembodied soul must remain a real possibility. And so it must. However, such a supposition is clearly at odds with virtually all contemporary biology, neuroscience, and cognitive science. My point is that if such a soul exists, it is hard to see any way in which it could be me, or you, as we exist in our present incarnation.

2. Meaning is grounded in our bodily experience. If there is no disembodied mind—no transcendent soul or ego—to be the source of meaning, then what things are meaningful to us and how they are meaningful must be a result of the nature of our brains, our bodies, our environments, and our social interactions, institutions, and practices. This fact gives rise to a major problem: how does meaning emerge from a continuous process of organism-environment interactions, bottom-up, if it can’t issue top-down from some alleged pure ego? The answer to this is a story based on recent empirical research in the cognitive sciences concerning the nature of meaning and thought. I will try to tell part of this story in [part 2](#) of this book. The core idea is that our experience of meaning is based, first, on our sensorimotor experience, our feelings, and our visceral connections to our world; and, second, on various imaginative capacities for using sensorimotor processes to understand abstract concepts. Any adequate explanation of meaning must avoid attributing it to either “body” or “mind,” for then we simply reproduce the dualism that is the source of the problem in the first place.

3. Reason is an embodied process. Our “body” and “mind” are dimensions of the primordial, ongoing organism-environment transactions that are the locus of who and what we are. Consequently, there is no mind entity to serve as the locus of reason. What we call “reason” is neither a concrete nor an abstract thing, but only embodied processes by which our experience is explored, criticized, and



transformed in inquiry. Reason is more an accomplishment of inquiry than a pre-given fact or capacity. If there is no “pure” reason, then it is necessary to explain how reason and logic grow out of our transactions in and with our environment. This, again, is a huge problem for any naturalistic account of mind. I will present evidence from the cognitive sciences that reason is tied to structures of our perceptual and motor capacities and that it is inextricably linked to feeling.

4. Imagination is tied to our bodily processes and can also be creative and transformative of experience. Our ability to make new meaning, to enlarge our concepts, and to arrive at new ways of making sense of things must be explained without reference to miracles, irrational leaps of thought, or blind impulse. We have to explain how our experience can grow and how the new can emerge from the old, yet without merely replicating what has gone before.

As it turns out, this may be one of the most difficult problems in all of philosophy, psychology, and science: how is novelty possible? As far as I can see, nobody has yet been able to explain how new experience emerges. The problem is that if we try to give a causal explanation of novel experience or novel thought, these come out looking causally determined, rather than creative and imaginative. An embodied theory of meaning will suggest only that new meaning is not a miracle but rather arises from, and remains connected to, preexisting patterns, qualities, and feelings.

5. There is no radical freedom. Most people believe that human will possesses absolute freedom, which is why we think we can hold people responsible for their actions. But if there is no transcendent self, no disembodied ego, to serve as the agent of free choice, then what sense can we make of real choice, or of moral responsibility for our actions? This problem has plagued all naturalistic accounts of mind, from David Hume to William James to Antonio Damasio. We need a view of choice that is consistent with cognitive neuroscience and its insistence on the embodiment of mind and yet which doesn’t make a shambles of our notions of moral responsibility.

6. Reason and emotion are inextricably intertwined. This claim directly challenges the received wisdom that reason and emotion are separate, independent capacities, one disembodied (i.e., reason) and the other embodied (i.e., emotion). The reason/emotion dichotomy is as basic a metaphysical dualism as you will find anywhere, and it has profound consequences for our view of thought and knowledge. It fosters the illusion of dispassionate reason—reason purified of any bodily contamination by feelings. It is extremely difficult to rethink this pernicious dichotomy, because our own experience appears to tell us that reason and emotion are distinct. I will present empirical evidence that emotions lie at the heart of our capacity to conceptualize, reason, and imagine.

7. Human spirituality is embodied. For many people, their sense of spirituality is tied to notions of transcendence—of the soul, of spirit, of value, of God. The traditional notion of transcendence is what I call “vertical transcendence,” because it requires rising above one’s embodied situation in the world to engage a higher realm that is assumed to have a radically different character from that of the world in which we normally dwell. This other world has to be radically other (i.e., nonphysical, infinite, transtemporal), because otherwise it would not solve the basic human problems that stem from the fact of human finiteness—problems that the existentialist theologian Paul Tillich (1957) identified as those of meaninglessness, alienation, injustice, sickness, and ultimately death. If, as the traditional view asserts, our body is the locus of our dwelling in this world and thus the locus of our finiteness, then our body must somehow be transcended if there are to be any satisfactory answers to the human condition of limitation, helplessness, and finiteness.

By contrast, if we are inescapably and gloriously embodied, then our spirituality cannot be grounded in otherworldliness. It must be grounded in our relation to the human and more-than-human world that we inhabit. It must involve a capacity for horizontal (as opposed to vertical)

transcendence, namely, our ability both to transform experience and to be transformed ourselves by something that transcends us: the whole ongoing, ever-developing natural process of which we are a part. Such a view of embodied spirituality may well support an environmental, ecological spirituality, but it is hardly likely to satisfy anyone for whom the only acceptable answer to our finiteness is the infinite.

What these seven consequences reveal is that acknowledging the profound truth of our embodiment calls into question several key components of what many people think it means to be a person. It is not surprising, therefore, that once most people really come to understand what an embodied conception of mind entails, they are going to be upset about it. Much of what they hold dear is at stake—their view of mind, meaning, thought, knowledge, science, morality, religion, and politics. That is why it is not easy to work out the details of an alternative view in a way that is existentially satisfying to most people.

In this book, I focus mostly on exploring the aesthetics of the bodymind—how meaning grows out of our organic transactions with our environment. I try to show why disembodiment is not purity of thought but would, in fact, amount to the loss of all the means we possess for making sense of things. As the Collins poem suggests, our bodies are the very condition of our meaning-making and creativity. If a man were reduced to only a skeleton with a penis at a typewriter, then he would, of course, write poems only about sex and death. Remove his penis, and the remaining skeleton can imagine only death, like the air passing through its bare ribs. Our task is not to supersede the body but to embrace it, to learn how it allows us to have meaning, and to nurture it as the locus of our world. We need an aesthetics of embodied meaning. We need to face the tough questions about where meaning comes from, how abstract concepts are possible, what mind is, and whether we have free choice. Such questions define our task, which is to plumb the meaning of the body—both how the body means and what embodiment means for our lives.

## Bodily Meaning and Felt Sense

Discovering, making, and communicating meaning is our full-time job. We do it from the moment we are born until the moment we die. Sometimes we do it consciously and intentionally; but mostly, meaning emerges for us beneath the level of our conscious awareness. Meaning is happening without our knowing it. So, to figure out where meaning comes from, we have to look deeply into mostly nonconscious bodily encounters with our world.

I submit that if you want to understand human meaning-making, you should probably not start with theories of meaning put forth in contemporary analytic philosophy of mind and language. You will find there treatments of concepts, propositions, and various language-like structures, but you will not find any awareness of deep, embodied, vital meaning.

For this immanent or embodied meaning, you must look more deeply into aspects of experience that lie beneath words and sentences. You must look at the felt qualities, images, feelings, and emotions that ground our more abstract structures of meaning. In [part 1](#), therefore, I dig down into our meaningful engagement with our world as it comes to us through our bodies. [Chapter 1](#) focuses on the importance of felt bodily movement in how our world reveals itself. [Chapter 2](#) explores the hypothesis that infants are learning the meaning of things and experiences, even though they are prelinguistic and are not little proposition-processing machines. Infant experience reveals the crucial role of patterns of felt experience—not just in the baby’s world, but equally in our adult sense of reality and in our ability to grasp the meaning of what is happening. [Chapter 3](#) turns to the importance of emotions as one of our primary ways to monitor the nature and adequacy of our ongoing interactions with our environments. Emotions are not second-rate cognitions; rather, they are affective patterns of our encounter with our world, by which we take the meaning of things at a primordial level. In [chapter 4](#) I argue, following John Dewey, that every situation we dwell in is characterized by a pervasive felt quality that is the starting point for all our perceptual discrimination and conceptual definition. This argument leads, in [chapter 5](#), to evidence for the central role of feeling and emotion in human reasoning, along lines first laid out by William James.

[Part 1](#) thus attempts to describe important dimensions of meaning that are typically overlooked by and excluded from views of meaning available in most Anglo-American analytic philosophy. Our first task is to unearth and describe these primary embodied sources of meaning that have been overlooked. Our second task is to begin formulating the larger philosophical picture of mind, thought, and meaning that goes along with this enriched and expanded conception of meaning. In particular, an embodied view of meaning requires an embodied, nondualistic, naturalistic view of mind and body as one process.

## The Movement of Life

Life and movement are inextricably connected. The movement of the fetus within the mother's womb gives her the joyful news of new life. The word "stillborn" strikes horror in a parent's breast. Eternal stillness—absolute absence of motion—is death. Movement is life. We are born into the world as screaming, squirming creatures, and through our movements we get "in touch" with our world, taking its human measure.

Attention to bodily movement is thus one of the keys to understanding how things and experiences become meaningful to organisms like us, via our sensorimotor capacities. It is not the whole story (temporality, for example, is equally primordial), but it is a good place to start our account of meaning-making. Movement is one of the conditions for our sense of what our world is like and who we are. A great deal of our perceptual knowledge comes from movement, both our bodily motions and our interactions with moving objects.

### MOVEMENT AND MEANING

In *The Primacy of Movement*, Maxine Sheets-Johnstone (1999, chap. 3) provides a phenomenological analysis of movement that can serve as a starting place for our account of embodied human meaning-making. Her account is phenomenological in the sense that it describes the origins, structures, and experienced qualities of human movement. It focuses on the felt qualities and patterns of our body movements and interactions with objects.

As animate creatures, we are born moving. It is originally through movement that we come to inhabit a world that makes sense to us—that is, a world that has meaning for us. Movement thus gives us knowledge of our world and, at the same time, reveals important insights about our own nature, capacities, and limitations.

In the beginning, we are simply infused with movement—not merely with a propensity to move, but with the real thing. This primal animateness, this original kinetic spontaneity that infuses our being and defines our aliveness, is our point of departure for living in the world and making sense of it. . . . We literally discover ourselves in movement. We grow kinetically into our bodies. In particular, we grow into those distinctive ways of moving that come with our being the bodies we are. In our spontaneity of movement, we discover arms that extend, spines that bend, knees that flex, mouths that shut, and so on. We make sense of ourselves in the course of moving. (Sheets-Johnstone 1999, 136)

Movement occurs within an environment and necessarily involves ongoing, intimate connection and interaction with aspects of some particular environment. This is a fact of monumental importance that should always be kept in mind in everything we say about the relation of self and world. From the very beginning of our life, and evermore until we die, movement keeps us in touch with our world in the most intimate and profound way. In our experience of movement, there is no radical separation of self from world. We move in space through constant contact with the contours of our environment. We are in touch with our world at a visceral level, and it is the quality of our "being in touch" that importantly defines what our world is like and who we are. What philosophers call "subjects" and "objects" (persons and things) are abstractions from the interactive process of our experience of a

meaningful self-in-a-world. It is one of the primary facts of our existence that we are not now and never were, either as infants or throughout human history, alienated from things, as subjects over against objects. There is no movement without the space we move in, the things we move, and the qualities of movement, which are at the same time both the qualities of the world we experience and the qualities of ourselves as doers and experiencers.<sup>1</sup>

#### QUALITATIVE DIMENSIONS OF MOVEMENT

What is it that we experience through our movement? Even though we are seldom consciously aware of the nature of our movement, what we are always experiencing are the qualities of things, spaces, and forceful exertions. We put things into and take things out of containers, and so we learn about containment. We experience linear versus nonlinear paths of motion, whereby we develop our understanding of trajectories. We feel various degrees of exertion and force, and we thus learn what level of exertion is appropriate for moving ourselves from one place to another and for moving objects of various weights. Feeling what it takes to cause an object to move from one place to another is a core part of our basic understanding of physical causation.

Movement is thus one of the principal ways by which we learn the meaning of things and acquire our ever-growing sense of what our world is like. This learning about the possibilities for different types of experience and action that comes from moving within various environments occurs mostly beneath the level of consciousness. It starts in the womb and continues over our life span. We learn an important part of the immanent meaning of things through our bodily motions. We learn what we can do in the same motions by which we learn how things can be for us.

Movements manifest a broad range of recurring structures and patterns that George Lakoff and I have named image schemas (Lakoff 1987; Johnson 1987; Lakoff and Johnson 1999). Typical image schemas of bodily movements include SOURCE-PATH-GOAL, UP-DOWN (verticality), INTO-OUT OF, TOWARD-AWAY FROM, and STRAIGHT-CURVED. Image schemas are discussed more fully in [chapter 7](#). For now, my point is only that movements are not defined merely by the internal structure of image schemas, but also by their distinctive qualities. For example, my movement along a forest path is not defined only by the SOURCE-PATH-GOAL structure of my walking. In addition, my movement manifests dynamic qualities—it can be, for example, explosive, graceful, halting, weak, or jerky. Sheets-Johnstone (1999, 140–51) leads us through a phenomenological experiment designed to reveal the primary qualitative structures or parameters of all movement. For example, perform any simple movement, such as sitting down comfortably in a chair and then standing up. Next, vary the performance of this motion in every way you can imagine: do it first fast, then slowly; now with an explosive effort, next with carefully controlled, gradual exertion; first jerkily, then smoothly; with body held taut and stiff, or with flowing grace. What this experiment reveals are four recurring qualitative dimensions of all bodily movements: tension, linearity, amplitude, and projection.

1. Tension. Every movement a person makes involves effortful action, and effort requires some level of tension in the musculature. Different movements thus demand different degrees of exertion and energy. We learn to anticipate, usually unconsciously, the amount of tension required to perform various activities. If you go to pick up a medium-sized suitcase, you anticipate the amount of effort needed to lift it. If it is empty when you thought it was full, you will be surprised, and your effort will be inappropriate for the task. If the suitcase is full of heavy books, you will be equally surprised when your exertion is inadequate to the task, and so your planned motor program will be disrupted. When your initial effort to lift the suitcase fails (with that telltale jerk on your whole body as you encounter the unexpected resistance of the heavy books), you automatically recalibrate the exertion

required, unconsciously make adjustments in the placement of your feet, lower your center of gravity, and lift again. Knowing your world thus requires exquisitely fine adjustments of muscular tension and exertion, calibrated via the tensive qualities that you feel in your body.

2. Linearity. Every move you make creates a path of motion. Those paths, actual and projected, are linear or curved, jagged or smooth, up or down. As we will see in the next chapter, infants learn to imagine possible trajectories of the motion of objects, based on speed, direction of motion, and previous location. They come to understand how a certain trajectory reaches forward into space and engages physical objects, and this understanding allows a person to be gracefully at home in their environment. People who are less successful in learning such projections are less skillful at negotiating space and tracking objects. Along with the tensive quality of motion, then, linear trajectories are an important part of an infant's nascent understanding of causation. We learn the feeling, the different qualities, of these various types of trajectory.

3. Amplitude. Any motion can be performed with various amplitudes, depending on whether our bodies fill and use the space available to us in a tight, contractive fashion or in an expansive way. In her provocative essay "Throwing Like a Girl," Iris Marion Young (1980) provides a phenomenological and sociological analysis of the socialization of girls and young women with regard to how their bodies should occupy and move within space. Young begins with Erwin Strauss's report on an earlier study of the marked differences in the manner of throwing that is typical of boys on the one hand and girls on the other:

The girl of five does not make any use of lateral space. She does not stretch her arm sideward; she does not twist her trunk; she does not move her legs, which remain side by side. All she does in preparation for throwing is to lift her right arm forward to the horizontal and to bend the forearm backward in a pronate position. . . . The ball is released without force, speed, or accurate aim. (Strauss 1966, 157)

By contrast, according to Strauss, boys tend to throw a ball with sweeping, forceful motions that occupy more of the full space available to them, both vertically and laterally, and that involve more of their whole body and its potential force. Boys are taught to bring the ball back in a sweeping lateral motion, moving their "throwing" foot back as they twist their entire body in preparation for the throw. They utilize their trunk, legs, and arms in a forward thrust and follow-through. Young describes this striking difference in the amplitude of motion as applying not just to throwing, but to all sorts of forceful motions:

Not only is there a typical style of throwing like a girl, but there is a more or less typical style of running like a girl, climbing like a girl, swinging like a girl, hitting like a girl. They have in common first that the whole body is not put into fluid and directed motion, but rather, in swinging and hitting, for example, the motion is concentrated in one body part; and second that the woman's motion tends not to reach, extend, lean, stretch, and follow through in the direction of her intention. (Young 1980, 146)

What Young is describing is how culture has often taught girls to confine their movements and their occupancy of space to a certain characteristic, highly restricted amplitude. Girls traditionally were not supposed to take up space, nor were they supposed to inject their entire bodily presence into a situation. That was considered unladylike. Culturally, such self-assertion and exertion of force have been reserved for males.

In the forty years since Strauss described these two gendered styles of throwing, certainly much has changed in the socialization of girls. Especially because of the emergence of training for girls in many sports at all levels, from preschool up through professional sports, and because of gradual changes in how girls are taught to stand, hold their bodies, and move, these amplitudinal differences are

beginning to change in significant ways.<sup>2</sup> It is conceivable that the earlier observed socially and culturally imposed differences might someday cease to exist. I cite this analysis only to illustrate the notion of amplitude of bodily motions. Whether based on anatomical differences or on gender, class, or other forms of socialization, these variations in amplitude are very real and significant. They are experienced as qualitative differences in motion and bodily comportment. They define some of the ways that a person's world is open to them for specific kinds of forceful actions.

4. Projection. In exerting force to stand up from a sitting position, I can vary the projective quality of motion. I can thrust myself upward with a violent initial propulsion, or I can raise myself with carefully monitored, deliberate speed. I can switch from smooth to explosive motion and back again. These different patterns entail quite different qualities of their corresponding bodily experiences; violent propulsion feels markedly different from gradual, continuous exertion of force.

#### MOVEMENT AS A BASIS FOR MEANING

The point I want to emphasize with Sheets-Johnstone's phenomenological description of the four basic qualitative parameters of movement is that dimensions like these will play a crucial role in how things can be meaningful to creatures who have bodies like ours and move in environments like ours. They are part of what we mean by, and what we experience as, force, effort, manner of motion, and direction of action.

As a phenomenologist, Sheets-Johnstone focuses on how these qualities of movements are felt and experienced by us. However, even prior to conscious experience, our bodies are inhabiting, and interacting meaningfully with, their environments beneath the level of conscious awareness. I want to suggest that even at this nonconscious level, these characteristics of movement are forming the basis for both the meaning of our movements and, at the same time, the meaning of the world that we move within. I am thus using the term meaning in a broader sense than is common in most philosophy and linguistics.

In subsequent chapters, I will present a view of embodied meaning that recognizes conscious inquiry and conscious grasping of meaning, but also processes of organism-environment interaction that operate beneath our felt awareness and that make that felt awareness possible. The key to my entire argument is that meaning is not just what is consciously entertained in acts of feeling and thought; instead, meaning reaches deep down into our corporeal encounter with our environment. This expanded sense of meaning is the only way to preserve continuity between so-called higher and lower cognitive processes. The nonconscious interactive processes make possible and are continuous with our conscious grasp of meaning. At some point, these meanings-in-the-making ("proto-meanings" or "immanent meanings," if you will) can be consciously appropriated, and it is only then that we typically think of something as "meaningful to us." But notice that these meanings cannot just pop into existence (arise in our consciousness) out of nothing and from nowhere. Instead, they must be grounded in our bodily connections with things, and they must be continuously "in the making" via our sensorimotor engagements. There is a continuity of process between these immanent meanings and our reflective understanding and employment of them. For example, tension has a meaning grounded in bodily exertion and felt muscular tension. Linearity derives its meaning from the spatial, directional qualities of bodily motion. Amplitude is meaningful to us first and foremost as a bodily phenomenon of expansion and contraction in the range of a motion. Projection is learned first as a vectoral quality of certain forceful bodily actions.

The meaning of these differences is known by the quality of our differing experiences, but that meaning is prepared and developed in our nonconscious bodily perceptions and movements.

Subjectively, we would say that we feel these qualitative dimensions. However, they are not just subjective qualities. It would be a mistake to subjectivize these experiences of qualities of motion, as if they were locked up within some private inner world of feelings. On the contrary, they are qualities of organism-environment interactions. As such, they are not merely “subjective-feeling” responses (not just “inner” experiences). They are qualities in the world as much as they are in us. They are the qualities of different experiences that involve both the structure of the organism and the structure of its environments inextricably woven together, and even attuned to one another. Moreover, they are qualities experienced and shared by other people, who have bodies like ours and who inhabit the same kinds of physical environments that we do.

We must guard against the fallacy of assuming that our knowledge or understanding of specific meanings exhausts those meanings. I will later appropriate Eugene Gendlin’s account of the “felt sense” to show that meanings are working and developing for us even prior to our conscious awareness of them. Without this experiential rootedness, meanings would be miracles born ex nihilo as disembodied cogitations.

In another chapter, we will examine how qualitative bodily experiences are part of our abstract conceptualization and reasoning and are also present in logical inference. But even with the minimal phenomenological analysis we have done so far, the importance of movement for our capacity to experience the meaning of things is evident. Consider, for example, how our self-movement creates our sense of spaces with their differing designs and patterns. Sheets-Johnstone observes that

the predominant shifting linear designs of our moving bodies may be now curved (as when we bend over), now twisted (as when we turn our heads), now diagonal (as when we lean forward), now vertical (as when we walk), and so on; the predominant linear patterns we create in moving may be now zig-zag (as in a game of tag), now straight (as in marching), now circular (as when we walk around an object or literally ‘go in circles’), and so on. (Sheets-Johnstone 1999, 144)

Such concepts as curved, twisted, diagonal, vertical, zig-zag, straight, and circular get their meaning primordially from our bodily postures, our bodily movements, and the logic of those movements. You understand what twisted means through your bodily experience of the forceful exertions and kinesthetic sensations accompanying the act of twisting yourself or twisting objects. Furthermore, all of this bodily meaning is appropriated even when twisted comes to be used in a psychological or moral sense (as in a “twisted” or “warped” personality that leads to “twisted” misdeeds). To give another example, you know the bodily meaning of standing straight and tall, and you appropriate this meaning in your conception of moral “uprightness.” You learn the corporeal logic of circular motions with your eyes, feet, and hands, and this body knowledge carries over into your understanding of circular arguments, circular processes, and temporal circularity. As we will see in detail later, many of our most fundamental concepts, including those lying at the heart of ethics, politics, and philosophy, have their roots in movement and other bodily experiences at a pre-reflective level.

Let us take stock of the argument so far. Life (animation) is intimately tied to movement. We are born into the world moving, in a way that gives us a great deal of grounded understanding of what our world is like. By moving, we are in continual touch with aspects of our surroundings. Through movement, we learn not only the contours and qualities of our world, but also the sense of ourselves as inhabiting a world with which we can interact to achieve some of our ends and goals. Above all, it is not just the structures of movements that matter; it is, even more, the qualities of movement that constitute our bodily understanding of motion.

Sheets-Johnstone regards movement as a paradigmatic example of the ways that our capacity to



make any sense of our world is rooted in our bodily acts of sense-making: “We make sense of our bodies first and foremost. We make sense of them in and through movement, in and through animation. Moreover, we do so without words. This primordial sense-making is the standard upon which our sense-making of the world unfolds” (Sheets-Johnstone 1999, 148).

This statement of the primacy of bodily movement is not meant to exclude other bodily acts that give rise to meaning, such as seeing, touching, and hearing, but it does emphasize the importance of movement for our learning about our own bodies and our world. The bodily basis of meaning and thought is a profound truth about human beings. It cannot, however, be demonstrated solely on the basis of phenomenological analysis of experience, because, as I have said, meaning cannot be reduced only to felt qualities or conscious processes. It must also include nonconscious bodily interactions with the world. Therefore, at this point, we cannot yet explore all the ramifications of this fundamental claim that meaning is embodied. That will have to wait for subsequent chapters, where we will survey some of the empirical evidence for the embodiment of concepts and reason. Sheets-Johnstone is correct, however, in saying that “a phenomenology of the qualitative dynamics of originary self-movement leads us to the origin of concepts foundational to our lives as animate organisms and to our knowledge of ourselves as animate—moving—organisms to begin with” (1999, 155). Phenomenology leads us to the primacy of movement, but it alone is not enough to prove the case. What is required additionally is empirical research from the cognitive sciences of the embodied mind.

#### THE MOVEMENT OF TIME

A phenomenological analysis of bodily movement and the perceived motion of objects gives us insight into how we experience and conceptualize time. Sheets-Johnstone suggests that prior even to our experience of before, now, and after, which turn out to be products of reflection, we encounter the qualitative flow of events that makes up the contours of our lived experience. Take any bodily motion, such as opening and closing your mouth, raising and lowering your right arm, standing up and sitting down. As we have seen, any movements like these manifest distinctive qualities, depending on how the act is performed, and those qualities involve tension, linearity, amplitude, and projection, at the very least. There is also a temporal quality to the way any particular action is performed. Marching has a temporal quality very different from that of skipping along or walking on tiptoes. Marching, skipping, and tiptoeing give us three qualitatively different experiences of the passage of time. Time can move resolutely along in measured beats; it can skip along with exaggerated rhythms; or it can pass us with the caution and high tension associated with tiptoeing. Sheets-Johnstone concludes that

for any particular temporality to be the temporality it is . . . a certain temporal quality is essential to it: an ongoing evenness as when we walk normally or an ongoing unevenness as when we walk with a limp; a jaggedness as when we move in fits and starts, a swiftness as when we punch an oncoming ball; a suddenness as when we duck, a hesitant slowness as when we move warily with apprehension and stealth. (Sheets-Johnstone 1999, 157)

Experiential correlations like these, between motions and the felt passage of time, provide one primary basis for much of our conceptual understanding of time. This correlation of the motion of an object with the passing of time is present in infants and children as well as adults. The principal difference between children and adults regarding this experience is not the existence of the correlation, but rather that adults have acquired the ability to make use of this experiential correlation as a basis for abstract thought. We (adults) conceptualize time via deep, systematic spatial-movement

metaphors in which the passage of time is understood as relative motion in space. I want to consider briefly two of our most basic metaphorical conceptualizations of time, in order to emphasize their grounding in experienced correlations of motion with the passage of time. This jump to the level of our metaphorical understanding of time may seem a bit premature, since the nature of metaphor and its indispensable role in human understanding are not discussed until a later chapter. However, by way of anticipation, I want to connect our phenomenological account of the qualities of temporal flow with our ability to conceptualize time and temporal relations. For, already in our perception and bodily movement, we experience this intimate correlation of movement and temporal change that is the basis for some of the ways we think more abstractly about time, and it is precisely the various qualities of different movements that permit us to conceptualize different experiences of the passing of time.

Phenomenologically—at the level of felt experience—two of the most important ways in which time comes to be experienced are through the motion of objects and through movement of our bodies. This gives rise to two fundamental metaphorical spatializations in our concepts of temporal change. In *Philosophy in the Flesh*, George Lakoff and I (1999) analyzed in detail these and other metaphorical conceptualizations of time.<sup>3</sup>—The first spatialization understands discrete times metaphorically as objects moving toward a stationary observer, first in front of the observer, then passing her, and finally moving further and further away behind her. The metaphor consists of a conceptual mapping of entities, structures, and relations from the domain of moving objects in space onto the conceptual domain of temporal change, as follows:

#### The MOVING TIME Metaphor

| <i>Source domain (spatial motion)</i> | <i>Target domain (temporal change)</i> |
|---------------------------------------|--|
| Location Of Observer                  | → The Present                          |
| Space In Front Of Observer            | → The Future                           |
| Space Behind Observer                 | → The Past                             |
| Moving Objects                        | → Times                                |
| Motion Of Objects Past Observer       | → The “Passage” Of Time                |

Notice that this MOVING TIME metaphor is grounded very naturally in our experience of correlations between objects moving in space and temporal change. Although many linguists and philosophers have argued that such a metaphor can only be based on a set of preexisting literal similarities between objects moving in space and the passing of time, this is clearly not the case. There are no such literal similarities between the source domain (moving objects) and the target domain (temporal change) that would be relevant to the meaning of the expressions based on the metaphor. Instead, it is these experiential correlations that ground the metaphor, because spatial motions are one of the principal ways in which time “moves” or “passes” for us.

Once this initial orientation of stationary observer and moving time is established, the conceptual mapping of structure from source domain to target domain allows us to use our knowledge of moving objects to construct a metaphorical understanding of the “passage” of time. For example, human perceivers project fronts and backs onto moving objects. Fronts are projected in the canonical direction of motion of the object, so that the front of a bus passes a stationary point before the back of the bus does, given that the bus is moving “forward.” Any object upon which we can imaginatively project a front and a back can thus be “in front of” or “behind” another object, depending on their relation to each other and their shared direction of motion. When this knowledge structure is applied

to our understanding of time, we construct a corresponding knowledge structure for moving time. We speak of Tuesday following (or coming after) Monday, of Tuesday preceding (or coming before) Wednesday. We also experience objects moving past us at various speeds and with various types of motions (creeping, flying by, racing). Correspondingly, times move with various speeds, as in “Tuesday went by in a flash,” “The hours crept past,” “Our meeting dragged along at a snail’s pace,” “Time flies when you’re having fun,” and “The lazy days of summer roll by.” Lastly, at the moment when a particular time “passes” you (the observer), it is conceptualized as located where you are. Thus, we talk about doing something here and now.

The second major metaphor system arising from the spatialization of time is based on the moving of our bodies through space. In this second orientation, the observer is not stationary but moves from one location to another over a spatial landscape. This source-domain structure gives rise to a mapping in which times are spatial locations and the motion and speed of the moving observer determine the character of temporal change.

### The MOVING OBSERVER Metaphor

| <i>Source domain (spatial motion)</i>     | <i>Target domain (temporal change)</i> |
|---|--|
| Location Of Observer                      | → The Present                          |
| Space In Front Of Observer                | → The Future                           |
| Space Behind Observer                     | → The Past                             |
| Locations On Observer’s Path<br>Of Motion | → Times                                |
| Distance Moved By Observer                | → Amount Of Time “Passed”              |

Like the MOVING TIME metaphor, the MOVING OBSERVER metaphor uses our knowledge of the source domain to construct a corresponding knowledge of the target domain. Spatial locations can be of various sizes, and we can measure their length by established units. Correspondingly, times can be of differing lengths, and we can measure their lengths by established units (seconds, minutes, hours, days, etc.). We can visit our relatives for a short time or a long time. Our stay can extend over two weeks, and a conference can stretch over four days. One can travel over the holidays. As an observer moving along a path, one can approach various places and get nearer to and farther away from them. In the temporal realm, therefore, we speak of getting closer to Thanksgiving, approaching (or coming up on) the weekend, passing the deadline, arriving in a minute, leaving some unhappy event far behind, reaching Saturday, and being halfway through the month.

The crucial point for our purposes is that the metaphor is conceptual, and it is based on experiential correlations between the movement of a person over a landscape and the passing of time. The metaphor is not merely a linguistic entity—a collection of words only. The cross-domain mapping is based on experienced correlations of motion and temporal flow (and not on any supposed after-the-fact similarities between spatial motion and temporal change). The mapping constitutes our conceptual understanding and guides our reasoning about time. And the mapping is, in turn, the basis for the language we use to talk about time. Here is as clear a case as one can find of meaning and concepts being grounded in the qualities and structures of bodily experience.

### NONCONSCIOUS BODILY MEANING

I give these two examples of embodied conceptual meaning and thought as an early reminder of

where the argument of this book is headed. We need, first, to appreciate the pervasiveness of embodied meaning-making at the corporeal levels of our experience. We must see how our bodies, our brains, and our environments together generate a vastly meaningful milieu out of which all significance emerges for creatures with bodies like ours. We can call this nonconscious dimension immanent meaning. Second, we need to see how our “higher” abstract conceptualization and reasoning are grounded in this embodied meaning-making. This requires us to explore the continuity that exists between our mostly nonconscious experience of embodied meaning and our seemingly disembodied acts of thinking and reasoning. Finally, we need to see how recognizing the bodily grounding of meaning leads us to a new understanding of thought, knowledge, and symbolic interaction that challenges many of our most cherished assumptions about the mind.

In this chapter, we began where all life begins—with movement, and with the qualities that lie at the heart of our experience of movement. The next step in plumbing the bodily depths of meaning is to explore some key infant and early-childhood experiences that, even prior to language, provide us with meaningful contact with our world.