

A Course in Consciousness

Part 1: Quantum theory and consciousness

Part 2: The metaphysics of nonduality

Part 3: The end of suffering and the discovery of our true nature

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Dialogue in Consciousness

1. What is the difference between a concept and Reality?

- a. A concept is a result of conceptualization, which is the process of separating and naming.
- b. Conceptualization is a process learned in early childhood. The infant does not conceptualize because its intellect is undeveloped. In contrast, the sage has a well-developed intellect and conceptualizes but sees that separation is an illusion.
- c. Without conceptualization, there are no objects (e.g., in dreamless sleep, under anesthesia, or in samadhi) because, by definition, objects are always separate from each other.
- d. Reality is not a concept. Rather, It is absence of separation. Therefore, It is also absence of concepts and objects.
- e. Conceptualization appears to fragment Reality (which is also Wholeness) into separate objects so that Reality no longer seems to be whole. However, Reality remains unchanged by it.

2. What is meant by true and untrue concepts?

- a. A belief is a concept to which the mind is strongly attached.
- b. A belief that cannot be verified by direct seeing is always subject to attack by a counter-belief. Therefore, it must be constantly reinforced by repetition of the belief.

Blind, unexamined, purposeful trust in a belief is called faith.

c. Since Reality is absence of separation, It cannot be perceived. Therefore, concepts cannot describe Reality (but they can be true, see g and h below).

d. Example: A material object by definition is separate from other material objects. Therefore, material objects are not real. The belief that material objects are real is constantly reinforced by materialistic culture, and is sustained only by a failure to see the distinction between objects and Reality.

e. Although concepts cannot describe Reality, they can point to Reality.

f. A pointer is an invitation to see directly the distinction between an object and Reality.

g. If a concept asserts or implies the reality of any object, it is untrue. If it negates the reality of an object, it is true (but not a description of Reality). A true concept can be a useful pointer to Reality.

h. Example: The concept that material objects are not real is true, and is a pointer to Reality.

3. What is the world (the universe)?

a. The world (the universe) is the collection of objects consisting of the body-mind and all other objects. The world appears to exist in time and space.

b. However, time and space are nothing but concepts. They are not real.

c. Time is the concept of change. Since all objects change, all objects are temporal concepts.

d. Space is the concept of extension (size and shape). Since all objects are extended in space, all objects are spatial concepts.

4. What are polar, or dual, pairs of concepts?

a. Conceptualization always results in inseparable pairs of concepts (polar, or dual, pairs) because every concept has an opposite.

b. Reality is apparently split into polar (dual) pairs by conceptualization. However, no concept is real since Reality cannot be split.

c. The result of apparently splitting Reality into polar pairs of concepts is called duality.

d. The two concepts of a pair are always inseparable because the merger of the opposites will cancel the pair.

e. Example: "I"/not-"I" is a polar pair of concepts. If the "I" and not-"I" merge, no concept remains.

5. What is Awareness?

a. Awareness is what is aware of the world.

b. Awareness is self-evident because you are aware and you know that you are aware. It does not change and It has no extension. Therefore, Awareness is not a concept or object.

c. The terms "Awareness" and "Reality" are equivalent conceptual pointers.

d. All objects appear in Awareness and are Its contents.

6. What are You?

- a. You are not a concept or object. Clear seeing shows that You are not the body-mind because You are what is aware of the body-mind.
- b. Therefore, You are Awareness.
- c. The world and the body-mind appear in You—You do not appear in the world.

7. What is existence?

- a. An object formed by conceptualization plus identification is said to exist.
- b. Without identification, there is no object—it is just a concept.
- c. No object is real because Reality is absence of separation. Therefore, no object exists.
- d. The apparent existence of objects is called dualism (not duality—compare with duality in 4c above).
- e. The sage, being only Awareness and knowing only Awareness, sees no separation, thus he/she sees concepts but no objects, i.e., duality but not dualism.

8. What is the “I”-object?

- a. The “I”-object is an assumed entity that results from identification of Awareness, which is real, with the “I”-concept, which is unreal. The “I”-object seems to exist, but clear seeing shows that it does not.
- b. You are not an object and You do not exist—You are Reality (Awareness).

9. What is it that makes other objects seem to exist?

- a. Whenever the “I”-object appears to arise, the non-“I” object also appears to arise. Then the dualism of desire for, and fear of, the non-“I” object appears to arise also.
- b. Thus, the non-“I” object seems real.
- c. Further conceptualization then splits the apparent non-“I” object into a multitude of objects, and fear/desire makes them also seem real.

10. What is the personal sense of doership and responsibility?

- a. The illusory “I”-object carries with it the illusory personal sense of doership and responsibility.
- b. However, since the “I”-object does not exist, there is no doer, no thinker, no chooser, and no observer.
- c. Therefore, You can do nothing and You are responsible for nothing. Thus, if something is supposed to happen, it will. If not, it won't.

11. If there is no doer, how do things happen?

- a. Doership is a concept that assumes that both the doer and causality exist (“I can cause this to happen”).
- b. However, since there is no doer, causality is nothing but a concept and is not real.
- c. Since all objects are nothing but concepts and do not exist, everything that appears to happen is also nothing but a concept and does not exist.
- d. Everything that appears to happen happens causelessly (spontaneously).

- e. Even if objects existed, it is easily seen that no putative cause could ever be isolated from the rest of the universe, so it could never act alone. Therefore, the entire universe would have to be the cause.
- f. Because the “I”-object and causality are nothing but concepts, so is free will. It too does not exist.
- g. Like all other objects, God is nothing but a concept, and does not exist.

12. What is suffering?

- a. Suffering is the desire/fear dualism (i.e., where there is desire, there is fear, and vice versa) plus all the other emotions that derive from desire/fear.
- b. Suffering results from identification of Awareness with the concept of “I”, making the “I”-entity seem real. With the illusory “I”-entity comes the sense of personal doership, plus the illusory existence of all other objects.
- c. Separation makes objects seem real, and desirable/fearful.
- d. Identification with the concept of doership leads to the belief that “I” can change what-is.
- e. With this belief comes the sense of personal responsibility.
- f. With the sense of personal responsibility, comes regret, guilt, and shame for the past; and worry, anxiety, and fear for the future.

13. What is awakening (enlightenment)?

- a. Awakening is disidentification of Awareness from the “I”-concept, and therefore also from the sense of personal doership and responsibility.
- b. With awakening comes the awareness that there is no person or, and there never has been any person or entity.
- c. Consequently, there are also no other objects, and there never have been any other objects.
- d. Since there is no doer, there is no regret, guilt, or shame for the past; or worry, anxiety, or fear for the future.
- e. With awakening also comes the awareness that Reality, which is what You are, has never been affected by either conceptualization or identification.

14. What can you do to awaken?

- a. Since direct seeing shows that there is no doer, there is nothing that you can do to awaken, and therefore you have no responsibility for it.
- b. Since awakening transcends time, and all practices are time-bound, no practice can bring about awakening.

15. Does this mean that there is no hope for the sufferer?

- a. Definitely not. There are many practices that will lead to less suffering. However, like all other actions, they are never done by a doer since there is no doer. Therefore, you cannot do them, but if they are supposed to happen, they will. If not, they won't.
- b. Any practice of direct seeing can reveal Reality.
- c. Example: To see that there is no “I”, look inward for it and see that there is none.

See also that everything that happens, including all thoughts and feelings, happens spontaneously, so there is no doer and there is no responsibility.

d. Example: To see that no object exists, look and see that, if there is no separation, there are no objects. Then, look and see that nothing in the world can ever bring you peace. Finally, see that nothing can affect You who are pure Awareness and Peace.

16. What are the three stages of disidentification practice?

a. Watch your feelings. The more clearly you see (not act on) them as they rise and fall, including all of your desire, lust, envy, anxiety, fear, shame, guilt, contempt, resentment, anger, rage, hatred, helplessness, hopelessness, defectiveness, and despair, the more you will transcend them, and the less you will suffer. A good way to do this is to keep a written journal of all of your mental upsets, and to record the root feelings as soon as possible after they occur.

b. Enquire into the ownership of your feelings. Ask, who is it that is feeling this (fear, guilt, shame, or other uncomfortable emotion)?, then look. This will help you to disidentify from it.

c. Go inward. Inward is absence of the "I" and presence of peace. The more time you spend there, the more you will realize your true nature, and the better you will feel.

Foreword

From 1992 through 1995, I taught several seminars on reality and consciousness according to quantum theory for humanities undergraduates at the University of Virginia. These seminars attempted to outline in an understandable way to the nonscientist the reasons why consciousness is a necessary part of the most widely accepted interpretations of quantum theory. For these seminars, I wrote concise but complete notes which I handed out to my students, and which summarized the salient points in order to make as clear as possible the scientific basis for the seminar. A revised and refined version of these notes comprises Part 1 of this work.

In 1995, 1996, 1998, 2003, 2004, again for the undergraduate nonscientist, I taught seminars on nonduality, or Advaita, beginning with the above described scientific information as Part 1, following with several speculative chapters on the metaphysics of nonduality as Part 2, and concluding with the teachings of several contemporary jnanis, or enlightened sages, as Part 3. Sages are not usually interested in teaching the principles of nonduality in such a systematic, logical way since such a conceptual system can be a prison for the mind, leading it to think that it can transcend itself (escape from its self-imposed prison) merely by mastering the system. Nevertheless, for teaching purposes, I wrote a set of notes for these seminars also.

I have continually updated and refined these notes as my experience and insights have evolved. My intent has been to present the teaching of nonduality in a scientifically sound and logically consistent, but still readable, document. However, please be aware that I am not a sage and I am not enlightened, so whatever you get from this course should be from its content alone, not from believing me.

While there is little about Part 1 that any scientist would disagree with, given enough time for careful contemplation, there is considerable material in Parts 2 and 3 that is in disagreement

with what some sages say. The reason for this difference is that science deals entirely with concepts, which can be seen to be either self-consistent or not, and in agreement with observations or not, while it is impossible for a sage to use concepts to describe Reality, because Reality transcends all concepts. In science, concepts are (or are not) truth, while in spiritual teachings, concepts can only be pointers to Reality. The sage uses concepts as tools to crack open the conceptual prisons in which we live, but then all of those concepts must be thrown away or they become chains in our bondage. Nevertheless, there are many concepts in Parts 2 and 3 that are susceptible to verification by direct observation by those who think they are still in prison, and these impart credence to the rest of the teaching.

For the reader who is not interested in quantum theory, an abbreviated but still complete course of study can be obtained merely by omitting Chapters 2, 3, 4, 6, 7, and 8. These are the chapters which show that physics is incomplete without consciousness; they are not needed for understanding the remaining material.

Some people may want to read an even shorter course, covering only the principles and practices of Advaita. This would consist only of Chapters 9, 10, 11, 14, 20, 21, 22, 23, and 24.

The Dialogue is a short question-and-answer summary of the course, while Chapter 26 is an even shorter summary.

Part 1. Quantum theory and consciousness

Preface to part 1.

Part 1 consists of notes on the philosophical and scientific underpinnings of this course in consciousness. We establish the context of our discussion within the three major types of metaphysical philosophy, ask the questions that are naturally raised when one begins a study of conscious mind, summarize the scientific data that must be taken into account in any attempt to understand the phenomena of consciousness, and present a simple, understandable description of the philosophical and quantum theoretical basis for the need to include consciousness in our description of the material world. We shall see that, from a sound, scientific point of view, not only is it impossible to understand the material world without considering the consciousness of its observer, but, in fact, it is Consciousness which manifests the world. However, it cannot be the individual consciousness of the observer that does this, but it must be nonlocal, universal Consciousness.

Chapter 1. The three major metaphysical philosophies

1.1. The assumption of objective reality, a necessity for survival and for science?

The assumption of an external reality is the assumption that there is a real world that is external to our mind and senses, and that it exists whether or not we as observers exist, and whether or not we are observing it. This assumption cannot be proved because all of our perceptions, without exception, are mental images, and we have no means to go beyond our mental images. It is one we all commonly make without even thinking about it. We assume the office and the computer in it are there after we leave work at the end of the day and will be there when we arrive at work in the morning. When we head home at the end of the day, we

assume that our house or apartment will be there when we arrive, and that it continued to be there in our absence after we left in the morning. We assume that our friends, relatives, and acquaintances are there whether we can see and talk to them or not, and whether or not we are thinking about them. We assume that our parents existed before we were born, and that many of the people we know will be alive after we die. So many of our everyday experiences repeatedly confirm this assumption that most of us hardly question it. It is an assumption that has enormous survival value: we know that a speeding car can kill us while we are crossing the street absorbed in our thoughts and unaware, that a stray bullet can instantly obliterate our consciousness without warning, or that we can die from an external agent such as a virus, a bacterium, or a poison.

The assumption of external reality is necessary for science to function and to flourish. For the most part, science is the discovering and explaining of the external world. Without this assumption, there would be only the thoughts and images of our own mind (which would be the only existing mind) and there would be no need of science, or anything else.

In addition to the assumption of an external reality, we also make the assumption that this reality is objective. This is repeatedly confirmed by our daily experience as well as by scientific observations. Objectivity means that observations, experiments, or measurements by one person can be made by another person, who will obtain the same or similar results. The second person will be able to confirm that the results are the same or similar by consultation with the first person. Hence, communication is essential to objectivity. In fact, an observation that is not communicated and agreed upon is not generally accepted as a valid observation of objective reality. Because agreement is required, objective reality is sometimes called consensus reality.

As we have said, science assumes that objective reality is external to the minds that observe it. Even psychologists make this assumption in their study of mental functioning when they study minds other than their own. The results are objective because they can be communicated to other minds and compared. Thus, what we might sometimes consider to be subjective, mental phenomena are still really objective, and in this sense psychology is really an objective science.

What about the person who observes his/her own thoughts and other mental impressions? In this case, the observed reality is clearly not external, but it still can be communicated and compared with similar internal observations of others, so we can regard it to be objective if there is agreement. For example, there is no difficulty when we compare the mental steps that we go through while working the same math problem, or even when we compare our experiences of fear, or red, if we are responding to the same external stimuli. If we agree that we are seeing or feeling the same thing, then we can define these mental impressions to be objective. In this case, it is clear that the same "external" stimulus must be present to both of us, so these mental impressions are really an extension of external reality. Indeed, all observations of so-called external reality are really observations of our own mental impressions that result from some stimulus that is presumed to be external. We must keep in mind here that "external" means external to the mind, not necessarily external to the body. For example, if I experience pain in response to being stuck with a hypodermic needle or having been stricken by the flu, nobody would question the objectivity of my observation.

If we now ask, “what are purely subjective experiences?”, we are led to consider experiences that are purely internal to the mind and that are not the direct result of some “external” stimulus. Everyday examples of such experiences are thoughts, memories, feelings, emotions, imaginations, dreams, and visions. However, many such experiences are so similar to those of other people that we can easily communicate them to others, so they have an objective quality and are hence not usually considered to be purely subjective. This type of objectivity is thus based on what so-called “normal” people commonly experience. In fact, one could define “normality” as the condition of having such experiences.

Now we must consider experiences that are also purely internal to the mind, but that fall outside the bounds of normality as defined above. These types of experiences we might call purely subjective since they are not easily communicated to others and hence lack both external stimulus and objectivity. Examples are hallucinations, delusions, religious and other ineffable experiences, and the experiences of awakened or self-realized minds. It is clear that our definition of subjectivity depends on our definition of normality. In fact, we shall see later that “normal” minds can be really considered to be suffering from collective delusion and that all suffering, while “normal”, is the result of this delusion.

As a side point, we might ask, "does the mind function when we are not observing it?" This question assumes that the mind is a real object that exists outside of our awareness, i.e., that it is objectively real. (Later we shall use a different definition for the mind.) Such mental functioning, if it exists, can only be assumed since it is not observed directly, but there are certain kinds of experiments that imply that there are such processes. We shall talk about some of them later. Even in our everyday experience, the mind will sometimes appear to work on a problem unconsciously, i.e. without conscious awareness, and the solution then will later appear full-blown, seemingly in a flash of genius.

We have said that science assumes that external reality exists whether or not it is observed but that this cannot be proved since all of our observations are necessarily purely mental images. A statement that by its very nature cannot be proved is not a physical assumption, but is called a metaphysical assumption. (Such an assumption can also be called an axiom.) Thus, the bedrock of all science is not science at all but is metaphysics! Not only the nature of science, but also our experience of living, would be fundamentally changed if this assumption were not made. Later in this course, we shall discuss a teaching in which this assumption is not made and which gives us a radically different picture of ourselves and of the world.

1.2. Materialism, the philosophy that all is matter, or at least, all is governed by physical law

The earliest well-articulated philosophy of materialism was that of Democritus (Greek philosopher, c. 460 - c. 370 BC). He postulated a world made up entirely of hard, invisible particles called atoms. These atoms had shape, mass and motion, but had no other qualities, such as color or flavor. These latter qualities were considered to be subjective and were supplied by the observer, who also was considered to be comprised of atoms.

Little further progress was made with materialist philosophy until after the Protestant Reformation, which was initiated in Germany in the 1520s by the Augustinian monk, Martin Luther (1483 - 1546). This stimulated such ferment that the Roman Catholic order of the time

was overturned and was replaced by the new religious, political, and scientific orders of the 17th century. Atomism was then revived in the 1640s by French scientist and Catholic priest, Pierre Gassendi (1592 - 1655), who sought to combine the theory with Catholic doctrine. However, beginning in the 1640s, the liberation of science from all Church authority by the philosophy of Cartesian dualism (see next section), and the subsequent enormous scientific advances of the 19th and 20th centuries, solidified the authority of the materialists, and materialism became the dominant philosophy of the Western world.

Even those who claim to hold to philosophies other than materialism are influenced by it, perhaps in ways they are completely unaware of. Its fundamental principle is that matter and energy are primary and all else is secondary, in the sense that all else is derived from, or is an outgrowth of, matter and energy. Since the advent of quantum theory in the 1920s and its fundamental questions about the nature of matter, this philosophy has sometimes been broadened to state that physical law rather than matter and energy is primary, i.e., everything can be explained and understood in terms of physical law. This is called scientism, or scientific materialism.

Of course, this immediately begs the question, what is physical law? One could say that physical law includes all of the laws of reality, in which case the question becomes meaningless. For our purposes, we shall restrict the definition of physical law to those laws recognized to be part of physics. Physics we shall understand to be the study of the fundamental laws that govern the external, objective reality that was defined in the [previous section](#). Therefore, we shall understand materialism to be the philosophy that external, objective reality is primary, and everything else, such as all mental phenomena, are derived from, or are effects of, such reality.

The widespread belief in materialism has profound effects in our lives and in our society. If we believe this way, we must conclude that everything, including ourselves and all of life, is governed completely by physical law. Physical law is the only law governing our desires, our hopes, our ethics, our goals, and our destinies. Matter and energy must be our primary focus, the object of all of our desires and ambitions. Specifically, this means that our lives must be focused on acquiring material goods (including bodies), or at least rearranging or exchanging them, in order to produce the maximum material satisfaction and pleasure. We must expend all of our energy in this quest, for there can be no other goal. And in all of this, we have no choice, because we are totally governed by physical law. We may feel trapped by these beliefs and desires, but we cannot shake them. They totally dominate us.

A succinct, personalized, summary statement of materialist philosophy is, "I am a body."

We may think that we totally disagree with this philosophy, but let us think a bit more. Don't we think that we are the servants and prisoners of our bodies; that we must do their bidding, under threat of hunger, thirst, disease, and discomfort if we do not? Isn't the welfare of our bodies our primary concern, even to the extent that it is central to our plans for our entire future, or in reliving our whole past? Even if we substitute somebody else's body for our own in the above questions, the same drives still dominate us. We are almost totally body oriented, that is to say, matter minded. There is little, if any, freedom in this predicament.

Even the field of psychology has been influenced by materialism, the principle result being the thesis of behaviorism. This states that our behavior is totally determined by materialistic motivations, and that our consciousness and awareness have no effect on it. This has been a useful premise in much psychological research, particularly with animals. It also has worked its way into the thinking of society with the result that social and economic institutions commonly attempt to modify our behavior by offering material inducements. In fact this type of behavior modification actually does work to the extent that we have adopted materialistic beliefs.

A major problem of materialist philosophy is to explain consciousness, or mind. Materialists can hardly deny the existence of consciousness because it is a universal experience. The generally accepted materialist explanation is that consciousness is an epiphenomenon, or an emergent feature, of matter. It develops when material objects reach a certain level of complexity, that of living organisms, or at least of certain types of them. However, because it is totally dependent on matter for its existence, it cannot affect or influence matter. It can only be aware of it. Matter is still primary.

A related problem is how to determine the level of complexity at which consciousness is present. If mammals are conscious, are birds? Are insects? What about amoebas and bacteria? If the ability to reproduce is the only criterion, what about self-reproducing protein molecules, like prions? If complexity is the only criterion for consciousness, what about inanimate objects? If they are included, at what level of complexity? If they are excluded, why are they excluded? Materialists have no answers to these questions.

1.3. Cartesian dualism, the philosophy that both matter and mind are primary and irreducible

This philosophy was first propounded by René Descartes (French scientist and philosopher, 1596 - 1650) in 1641. It states that mind and matter (or the mental and the physical) are two separate and independent substances. Human beings (but not animals, according to Descartes) are composed of both substances. A mind is a conscious, thinking entity, i.e., it understands, wills, senses, and imagines. A body is an object that has physical size, i.e., it exists in physical space. Minds do not have physical size (hence do not exist in physical space) and are indivisible, while bodies are infinitely divisible (in Descartes' philosophy). Descartes initially wanted to limit his premises only to those that were indisputable; hence his famous premise "I think, therefore I am." The "I" in this statement is the mind and, since it does not exist in physical space, it can in principle survive the death of the physical body. Even though Descartes thought that mind and body were independent of each other, he thought that mind could act on body.

The succinct, personalized, summary statement of dualism is, "I am a mind, and I have a body." Dualism appeals to the intuition much more than does materialism. It is depressing to think, "I am a body," but less so to think, "I have a body." Many people have little doubt that they will survive the death of the body, at least in their hopes.

A major philosophical problem with dualism is the same as that posed by materialism. Do animals have minds? If animals are excluded, there is the problem of explaining some of their near-human behaviors. If animals are included, do we exclude any of them? What about plants and microbes? What about protein molecules and other inanimate objects? Cartesian dualism

has no satisfactory answers to these questions.

Another problem with dualism is to explain the relationship between mind and matter, particularly the effect that one can have on the other. It is not difficult to see that the body affects the mind. In particular, we (meaning our minds) seem to be affected by our bodies' health and comfort, and we certainly seem to be affected by whether or not the body is awake or asleep. Are these real effects, or are they illusion? If they are real, what is the mechanism for the body affecting the mind? Ultimately, we should be able to answer this question if the mind is physical since, in that case, it should obey physical law. If it is nonphysical, then we may not ever be able to answer it using the methods of science.

The related question is, does the mind affect the body, and if so, how? This also requires knowledge of the laws obeyed by mind in order to answer fully. We shall see that some interpretations of quantum theory state that mind manifests matter, a not insignificant effect. How this happens is not known. The lack of satisfactory answers to all of these questions has resulted in a substantial discrediting of dualism among philosophers.

How does the adoption of dualism as a personal philosophy affect our lives? The primary problem seems to be that it implies incomplete liberation from the limitations of the body. As long as we believe that we have a body, we will feel responsible for it, and that will ever be a source of fear. If materialism forever prevents us from being released from the body's prison, dualism allows us to get only half way out the door. We are still chained to the bars, with only the death of the body finally cutting the chains.

In spite of the deficiencies of dualism, Descartes succeeded in forever liberating science (the study of objective reality) from the dominance of Church dogma, which was based on the appeal to authority and which temporarily retained domination of the mind. From then on, science was allowed to flourish unimpeded. Science became so successful in predicting and controlling nature that scientists began to question the validity of all religious teachings. Materialism became more dominant as physical reality became better understood. Mind took a back seat and was reduced to an epiphenomenon. The Western world eagerly accepted the offerings of the materialist philosophy and became intoxicated with the comforts and pleasures that it offered. It reduced mind to a tool whose main use was to insure more and better houses and cars, more prestigious jobs and careers, and more beautiful mates and children. However, the inevitable result was the mind-stultifying hangover that now results.

1.4. Idealism, the philosophy that mind is all and all is mind

Idealism states that mind or consciousness constitutes the fundamental reality, or is primary. Some versions of idealism admit the existence of material objects, others deny that material objects exist independently of human perception.

Anaximander (Greek philosopher, c. 611 BC - c. 547 BC) may have been the first idealist philosopher. Only one fragment of his writing has been preserved, but he seems to have thought that the original and primary substance (which could be mind) is a boundless something from which all things arise and to which they all return again. He was struck by the fact that the world presents us with a series of opposites, of which the most primary are hot

and cold, wet and dry. He thought of these opposites as being “separated out” from a substance which was originally undifferentiated.

Plato (Greek philosopher, c. 428 BC - c. 348 BC) is often considered the first idealist philosopher, chiefly because of his metaphysical doctrine of Forms. Plato considered the universal Idea or Form, sometimes called an archetype—for example, redness or goodness—more real than a particular expression of the form—a red object or a good deed. According to Plato, the world of changing experience is unreal, and the Idea or Form—which does not change and which can be known only by reason—constitutes true reality. Plato did not recognize mystical experience as a route to true reality, only reason.

Idealism was first expounded by Plato in his cave allegory in *The Republic* (c. 360 BC) (see, e.g., Julia Annas, *An Introduction to Plato's Republic*, 1981, p. 252). Prisoners are in an underground cave with a fire behind them, bound so they can see only the shadows on the wall in front of them, cast by puppets manipulated behind them. They think that this is all there is to see; if released from their bonds and forced to turn around to the fire and the puppets, they become bewildered and are happier left in their original state. They are even angry with anyone who tries to tell them how pitiful their position is. Only a few can bear to realize that the shadows are only shadows cast by the puppets; and they begin the journey of liberation that leads past the fire and right out of the cave into the real world. At first they are dazzled there, and can bear to see real objects only in reflection and indirectly, but then they look at them directly in the light of the sun, and can even look at the sun itself.

This allegory is related to idealism in the following way. The shadows of the puppets that the prisoners are watching represent their taking over, in unreflective fashion, the second-hand opinions and beliefs that are given to them by parents, society, and religion. The puppets themselves represent the mechanical, unreasoning minds of the prisoners. The light of the fire within the cave provides only partial, distorted illumination from the imprisoned intellects. Liberation begins when the few who turn around get up and go out of the cave. Outside of the cave, the real objects (the Forms) are those in the transcendental realm. In order to see them, the light of the sun, which represents pure reason, is necessary. A similar allegory using today's symbols would replace the cave with a movie theater, the shadows with the pictures on the screen, the puppets with the film, and the fire with the projector light. The sun is outside, and we must leave the theater to see its light.

The eighteenth century British philosopher George Berkeley (1685 - 1753) was one of the major exponents of idealism. He denied the existence of material substance (calling his philosophy immaterialism), and held that the universe consists of God, which is the infinite spirit; of finite spirits including human beings, of ideas that exist only in the minds of spirits, and of nothing else. His most characteristic philosophical doctrine is summarized in the expression “to be is to be perceived.” In other words, to say that a material object exists is to say that it is seen, heard, or otherwise perceived by a mind. Since Berkeley assumed that material objects exist without human minds to perceive them, the mind that perceives them must be divine rather than human.

The German philosopher Immanuel Kant (1724 - 1804) expounded a form of idealism that he called transcendental idealism. He believed that there is a reality that is independent of human minds (the noumenon, or thing-in-itself), but that is forever unknowable to us. All of our

experience, including the experience of our empirical selves (the phenomenon, or thing-as-it-appears), depends on the activity of a transcendental self, also of which we can know nothing.

Georg Wilhelm Friedrich Hegel, also a German philosopher (1770 - 1831), built on the idealist philosophy of Kant, and called his system absolute idealism. He believed that reality is Absolute Mind, Reason, or Spirit. This Mind is universal, while each individual mind is an aspect of this World Mind, and the consciousness and rational activity of each person is a phase of the Absolute. The Absolute Mind continually develops itself in its quest for its own unification and actualization. For this purpose, it manifests itself as the subjective consciousness of the individual, who undergoes a rational process of development from a purely materialistic and self-centered state to a universal and rational consciousness. In this process, the individual passes through several phases—family, society, state—each of which represents a move from individualism to unity. Human history in general is the progressive move from bondage to freedom. Such freedom is achieved only as the separate desires of the individual are overcome and integrated into the unified system of the state, in which the will of the individual is replaced by the will of all.

The forms of idealism described above were all formulated by Western philosophers, who almost exclusively depended on rational thought to develop their philosophies. They scarcely took account of the many forms of Eastern philosophy, which are heavily dependent on mystical experience. Furthermore, there was very little recognition of the theories and knowledge that science was developing from the 17th century on.

For our purposes in this section, we shall consider a version of idealism, called monistic idealism, which states that consciousness and only consciousness is fundamental and primary. Everything, including all matter and every mind, exists within, and is part of, this consciousness. From this point of view, matter is an emergent feature, or epiphenomenon, of consciousness, rather than the reverse as in materialism. There are many aspects in the interpretation of quantum theory that can be explained in this philosophy, but which are the sources of perplexing paradox in a materialist or dualist philosophy.

In this philosophy, consciousness, as the ground of all being, cannot be conceptualized. The personalized, summary statement of monistic idealism is, "I am neither mind nor body. As Noumenon, I am pure subjective awareness, transcending all that exists and all that does not. As phenomenon, I am the objective expression of Noumenon, including all that exists and all that does not". This suggests that, in order to know the transcendent, noumenal self, one must look inward, away from all phenomenal objects. I as Noumenon am not an object and therefore I cannot be described conceptually or perceived as an object. My true nature can be realized only by looking away from both the conceptual and the perceptual.

We can adapt Plato's cave allegory to represent monistic idealism in the following way. The fire is replaced by the light of the sun (pure Awareness) coming in through the entrance to the cave, and the puppets are replaced by archetypal objects within the transcendent realm. The phenomenal world of matter and thoughts is merely the shadow of the archetypes in the light of consciousness. Here, we clearly see a complementarity of phenomenon and Noumenon. To look only at the shadows is to be unaware of Awareness. To be directly aware of Awareness is to realize that the phenomenal world is merely a shadow. The shadow world is what we perceive. Awareness can only be apperceived, i.e., realized by a knowing that is beyond

perception. Apperception liberates one from the shackles of the cave, and exposes one to infinite freedom. Apperception is the proof that consciousness is all there is.

1.5. The teaching of nonduality

So far, we have been discussing metaphysical philosophies without really defining what we mean by metaphysical philosophy. A metaphysical philosophy is a purely conceptual structure that is presumed to be a logically self-consistent description of some aspect of reality. It does not necessarily include techniques for experiencing this reality. A philosophy is different from what we shall call a teaching. The purpose of a teaching is to help a student to know a reality, no matter whether it is phenomenal or noumenal. Since the emphasis is on knowledge rather than on logic, a teaching may use whatever concepts and techniques work in bringing the student to the desired knowledge. A teaching often will have a philosophical basis, but there is no particular requirement to adhere rigidly to it.

Closely related to the philosophy of monistic idealism is the teaching of nonduality (in Sanskrit called Advaita). Nonduality as a coherent teaching was first formulated by Sankara (c. 788-820, see <http://www.advaita-vedanta.org/avhp/sankara-life.html>), a philosopher and theologian born in Kerala in southern India. A Hindu ascetic who lived for only 32 years, he interpreted the *Vedanta* (see note below) monistically, and ascribed all reality to a single unitary source that he identified as *Brahman*. In this, he declared all plurality and differentiation as nothing but an illusion.

[Note: *Vedanta* is one of the six orthodox systems of Indian philosophy, and the one that forms the basis of most modern schools of Hindu philosophy. The term *Vedanta* means the “conclusion” of the *Vedas*, the earliest sacred literature of India. The three fundamental *Vedanta* texts are the *Upanishads*; the *Brahma-sūtras*, which are very brief, even one-word interpretations of the doctrine of the Upanishads; and the famous poetic dialogue, the *Bhagavadgita* (“Song of the Lord”), which, because of its immense popularity, Sankara drew upon for support of the doctrines found in the Upanishads.]

Sankara's formulation of nonduality was written in Sanskrit, and contained many references to Hindu culture and religion. In addition to the difficulty of accurately translating it into English, there is the problem of separating its core teaching from everything else. Therefore, in this course, we shall rely only on modern teachers of nonduality, especially those who write and speak in English and direct their teaching at Western audiences.

Nonduality is a teaching, not a philosophy, because it uses many methods of pointing the mind away from the conceptual and towards the nonconceptual. Consciousness cannot be described--it must be known directly without the intermediary of concepts. The teaching of nonduality, while it uses concepts, is really a pointer to the truth that Consciousness is all there is. Our discussion of quantum theory and consciousness in Part 1 of this course is necessarily philosophical because, like all of science, it deals strictly with concepts. However, in Parts 2 and 3 we depart from philosophy and study instead the teaching of nonduality.

As paradoxical as it might seem, Advaita is more "scientific" than is the materialistic premise of an objective, external world because it is based on the immediate and direct experience of our consciousness, rather than on a metaphysical concept. The concept of an external world is not primary, but is a mental construct based on sense impressions and therefore, like all concepts,

it must be taught and learned, while the self-evident experience of consciousness is preconceptual and cannot be denied.

1.6. The distinction between Consciousness, Awareness, and mind

Here, we must say what distinction we shall make between mind and consciousness. Many writers use “mind” when other writers use “consciousness” to describe the same thing. In Chapters 1 through 8, we shall use the word consciousness (uncapitalized) rather ambiguously to mean either mind or the general principle of consciousness. This reflects the ambiguity of common usage. Beginning in Chapter 9, we shall be more precise and shall start referring to Consciousness (capitalized) as All-That-Is. This includes Noumenon (the Unmanifest) and phenomenon (the manifest). When we speak of our experience, we shall often refer to Noumenon as Awareness, and to phenomenon as mind. Then the word mind will mean only our experience of the mental, sensory, and perceptual functioning of the individual organism, not to any kind of physical object such as the brain. The combination of body and mind we shall refer to as the body-mind organism. After Chapter 9, we shall not use consciousness (uncapitalized) unless we are following the usage of other writers.

1.7. What is Reality not?

We shall see that, according to the teaching of nonduality, Reality is not:

1. What you have been told it is.
2. What you think it is.
3. What you believe it to be.
4. What you want it to be.
5. What you think it should be.

Well, then, what is It?

We shall see that the only way to find out is to look and see for yourself, not to believe. In fact, this is a course in seeing, not in believing.

Chapter 2. Classical physics from Newton to Einstein

2.1. The scientific method

The scientific method has four major components:

1. The assumption of an objective reality that can be observed.
2. Quantitative experiments on the objective reality in order to determine its observable properties, and the use of induction to discover its general principles. This was first systematically articulated by English statesman Francis Bacon (1561 - 1626) in his *Novum Organum*, published in 1620.
3. Validation of the results of these measurements by widespread communication and publication so that other scientists are able to verify them

independently. Although scientists throughout history have communicated and published their results, the first scientist to articulate the need for publishing the details of his experimental methods so that other scientists could repeat his measurements was English chemist Robert Boyle (1627 - 1691), who was strongly influenced by the views of Bacon.

4. Intuiting and formulating the mathematical laws that describe the objective reality. The most universal laws are those of physics, the most fundamental science. English natural philosopher Isaac Newton (1642 - 1727) was the first scientist to formulate laws that were considered to apply universally to all physical systems.

The last three of these components were all developed in the remarkably brief period from 1620 to 1687, and all by Englishmen!

2.2. Newton's laws and determinism

The fundamental assumption of classical physics is that the objective world exists independently of any observations that are made on it. To use a popular analogy, a tree falling in the forest produces a sound whether or not it is heard by anyone. While it is possible that observations of the objective world can affect it, its independence guarantees that they do not necessarily affect it.

Another fundamental assumption of classical physics is that both the position and velocity of an object can be measured with no limits on their precision except for those of the measuring instruments. In other words, the objective world is a precise world with no intrinsic uncertainty in it. As we shall see later, quantum theory abandons both of these fundamental assumptions.

Isaac Newton was the first important scientist both to do fundamental experiments and to devise comprehensive mathematical theories to explain them. He invented a theory of gravity to explain the laws of German astronomer and mathematician Johannes Kepler (1571 - 1630) which describe the planetary orbits, made use of the famous free-fall experiments from the leaning tower of Pisa by Italian scientist Galileo Galilei (1564 - 1642), and invented the calculus in order to give a proper mathematical framework to the laws of motion that he discovered. Newton considered himself to be a natural philosopher, but contemporary custom would accord him the title of physicist. Indeed, he, probably more than any other scientist, established physics as a separate scientific discipline because of his attempts to express his conclusions in terms of universal physical laws. He is thought by some to have been the greatest scientist that has ever lived. In 1687 at the age of 44 he published his *Philosophiae Naturalis Principia Mathematica (Mathematical Principles of Natural Philosophy)* in which he set forth his laws of motion and gravitation.

His three laws of motion can be written as follows:

1. A body moves with constant velocity (speed and direction) unless there is a force acting on it. (A body at rest has a constant zero velocity.)
2. The rate of change of the velocity (change in speed or direction) of a body is

proportional to the force on the body.

3. If one body exerts a force on another body, the second body exerts an equal and opposite force on the first.

In order to use these laws, the properties of the forces acting on a body must be known. As an example of a force and its properties, Newton's law of gravitation states that the gravitational force between two bodies, such as the earth and the moon, is proportional to the mass of each body and is inversely proportional to the square of the distance between them. This description of the gravitational force, when used together with Newton's second law, explains why the planetary orbits are elliptical. Because of Newton's third law, the force acting on the earth is equal and opposite to the force acting on the moon. Both bodies are constantly changing their speeds and directions because of the gravitational force continually acting on them.

Another example is the gravitational force acting between the earth and my body. Whenever my body is stationary, there must be another force acting on it, otherwise Newton's first law would not be correct. If I am sitting on a chair, this other force is an upward force acting on my body by the chair, and this just cancels the gravitational force acting on my body by the earth.

For more than 200 years, after many experiments on every accessible topic of macroscopic nature, Newton's laws came to be regarded by physicists and much of society as the laws that were obeyed by all phenomena in the physical world. They were successful in explaining all motions, from those of the planets and stars to those of the molecules in a gas. This universal success led to the widespread belief in the principle of determinism, which says that, if the state of a system of objects (even as all-encompassing as the universe) is known precisely at any given time, such as now, the state of the system at any time in the future can in principle be predicted precisely. For complex systems, the actual mathematics might be too complicated, but that did not affect the principle. Ultimately, this principle was thought to apply to living beings as well as to inanimate objects. Such a deterministic world was thought to be completely mechanical, without room for free will, indeed without room for even any small deviation from its ultimate destiny. If there was a God in this world, his role was limited entirely to setting the whole thing into motion at the beginning.

Intrinsic to the principle of determinism was the assumption that the state of a system of objects could be precisely described at all times. This meant, for example, that the position and velocity of each object could be specified exactly, without any uncertainty. Without such exactitude, prediction of future positions and velocities would be impossible. After many, many experiments it seemed clear that only the inevitable imprecision in measuring instruments limited the accuracy of a velocity or position measurement, and nobody doubted that accuracies could improve without limit as measurement techniques improved.

2.3. Thermodynamics and statistical mechanics; entropy and the direction of time

Thermodynamics is the physics of heat flow and of the interconversion between heat energy and other forms of energy. Statistical mechanics is the theory that describes macroscopic properties such as pressure, volume and temperature of a system in terms of the average properties of its microscopic constituents, the atoms and molecules. Thermodynamics and statistical mechanics are both concerned with predicting the same properties and describing

the same processes, thermodynamics from a macroscopic point of view, and statistical mechanics from a microscopic point of view.

In 1850, the German physicist Rudolf Clausius (1822 - 1888) proposed the first law of thermodynamics, which states that energy may be converted from one form to another, such as heat energy into the mechanical rotation of a turbine, but it is always conserved. Since 1905 when German-Swiss-American physicist Albert Einstein (1879 - 1955) invented the special theory of relativity, we know that energy and matter can be converted into each other. Hence, the first law actually applies jointly to both matter and energy. This law is probably the most fundamental one in nature. It applies to all systems, no matter how small or large, simple or complex, whether living or inanimate. We do not think it is ever violated anywhere in the universe. No new physical theory is ever proposed without checking to see whether it upholds this law.

The second law of thermodynamics can be stated in several ways. The first statement of it, made by Rudolf Clausius in 1850, is that heat can flow spontaneously from a hot to a cold object but it cannot spontaneously pass from a cold to a hot object. The second statement of the second law was made later by Scottish physicist William Thomson Kelvin (1824 - 1907) and German physicist Max Planck (1858 - 1947): heat energy cannot be completely transformed into mechanical energy, but mechanical energy can be completely transformed into heat energy. The third statement of the second law depends on a new concept which we must first discuss, that of entropy. We first consider six examples:

Example #1: Imagine a box divided into two compartments, each of which can hold only one ball. Put a ball into one of the compartments. Clearly, the number of ways that you can do this is two--the ball can be put into either compartment. (Mathematically, this is the number of combinations of two objects taken one at a time; this is given by the binomial coefficient).

Example #2: If there are three compartments, the number of ways you can put a ball in is three (the number of combinations of three objects taken one at a time).

Example #3: If there are four compartments, the number of ways you can put a ball in is four (the number of combinations of four objects taken one at a time).

Example #4: Now put two identical balls into a box with two compartments. The number of ways you can do this is only one (the number of combinations of two objects taken two at a time) because if the balls are interchanged, there is no distinguishable difference in the arrangements.

Example #5: Now put two identical balls into a box with three compartments. The number of ways you can do this can be counted in the following way:

- a) The first ball in compartment #1, the second in either of the other two. This adds up to two.
- b) The first ball in compartment #2, the second in either #1 or #3. But the first arrangement is identical to the first arrangement of a), so we don't count it. The second arrangement is new, so we count it. If now the first ball is now put into #3, the second can be put into either #1 or #2, but these are not new, so we don't count them.

Thus, the total number of distinguishable arrangements for two identical balls in three compartments is three (the number of combinations of three objects taken two at a time).

Example #6: Now put two identical balls into a box with four compartments. We count the number of possible ways as follows:

- a) The first ball in #1, the second in #2, #3, or #4. This adds up to three.
- b) The first ball in #2, the second in #1, #3, or #4. The first is the same as the first arrangement of a), so there are two new distinguishable arrangements.
- c) The first ball in #3, the second in #1, #2, or #4. Only the last arrangement is new, so there is one additional distinguishable arrangement.
- d) The first ball in #4, the second in #1, #2, or #3. Each of these arrangements is identical to a), b), or c), so these are not new.

Thus, the total number of distinguishable arrangements for two identical balls in four compartments is six (the number of combinations of six objects taken two at a time).

Example #7: Now put two balls into only the first three of four compartments. This is identical to Example #5 except that now there are two balls in four compartments instead of two balls in three compartments. The number of distinguishable arrangements is now three as long as we know that the balls are in the first three compartments. This example shows that the number of distinguishable arrangements depends not only on the number of balls and compartments, but also on how the balls are distributed in the compartments.

The methods of probability allow us to calculate the number of distinguishable arrangements in any number of compartments whether the balls are identical or not, and for any given distribution of balls. For a given number of compartments and for identical balls, the number of distinguishable arrangements is smallest (equal to one) when the number of balls is the same as the number of compartments (example #4). This would correspond to a pure crystalline solid material. For a given number of compartments and identical balls, the number of distinguishable arrangements is maximum when the number of balls is equal to half the number of compartments (example #6). This would correspond to a highly compressed gas. For a rarefied gas, the number of compartments (each equal to the size of a molecule) is vastly larger than the number of molecules, and the number of distinguishable arrangements is much greater than one (example #3) but less than the maximum (example #6).

We are now able to define entropy. Entropy is related to (actually, is proportional to the logarithm of) the total number of distinguishable possible arrangements of the system (in a six-dimensional position-velocity space rather than in the three-dimensional position space of the example above). Entropy quickly increases as we increase the volume of the system, the number of objects in it, and the total energy of the objects. For a macroscopic system, say of 10^{23} particles, the entropy is enormously larger than for the system of two balls described above. Entropy also is larger when the objects are uniformly distributed (example #6) than when they are clumped together (example #7). It turns out that it is also larger when energy as well as mass is distributed uniformly. Since energy is related to temperature, entropy is larger when the temperature is uniform, and it increases when the temperature increases.

We see that decreasing entropy is equivalent to increasing order or organization of an object

or system (example #7), while increasing entropy is equivalent to increasing disorder or disorganization (example #6).

It turns out that the second law of thermodynamics can be stated in the following way: Natural processes of an isolated macroscopic system normally proceed in the direction of maximum probability, which is the direction of maximum number of distinguishable arrangements of the system. (It is highly improbable, although not totally impossible, for them to proceed in the opposite direction.) The forward direction of time is the direction in which entropy increases. Thus, the second law of thermodynamics can be restated in terms of entropy: Natural processes of an isolated macroscopic system always proceed in the direction of increasing entropy. In classical physics, this defines the forward direction of time. In [Section 6.4](#), we shall see what determines this direction in quantum physics. (Note that we have emphasized that the second law applies only to a system that is isolated from the rest of the universe, or to the universe as a whole.)

The direction of time can also be inferred from the first two statements of the second law of thermodynamics: 1) The unidirectional flow of heat from hot to cold bodies, and 2) the possibility of total conversion of mechanical energy to heat energy, but not the reverse.

A mistake made by some people is to think that the second law applies to individual objects or systems, such as automobiles, plants, or human bodies, even if they are not isolated from the rest of the universe, and that this is the reason that such objects decay and disintegrate with time. This is a fallacy, however, because the second law does not prevent the entropy of an individual object from continuously decreasing with time and thus becoming more ordered and organized as long as it receives energy from something else in the universe whose entropy continues to increase. In our solar system, it is primarily the sun's entropy that continually increases as its fuel is burned and it becomes more disordered.

An extremely important property of Newton's laws is that they are time reversal invariant. What this obscure-sounding term means is that, if the direction of time is reversed, the directions of motion of all particles are also reversed, and this reversed motion is completely allowed by Newton's laws. In other words, the motion in reversed time is just as valid as the motion in forward time, and nature herself does not distinguish between the two. A simple example of this is the time-reversed motion of a thrown baseball, which follows a parabolic trajectory in either the forward or the reversed direction. Without seeing the act of throwing, and without air resistance, we would not be able to distinguish the forward parabola from the reversed parabola. Another way to state it is that a movie of a thrown baseball seems just as valid to us if it is run in the reverse direction as in the forward direction. Time reversal invariance is also apparent in the seemingly random motion of the molecules in a gas. If we could see their motion in a movie and then reverse it, we could not distinguish between the forward motion and the reversed motion.

However, if we consider the motion of an object containing many ordered particles (for example, in a recognizable shape), we encounter a different phenomenon. It is easy to tell the difference between the reversed and forward motions of a person, a horse, a growing plant, a cup falling from a table and breaking, and most other examples from everyday life. In all of these cases, the motion at the individual molecule level is time reversal invariant, but it is clear that the gross motion of the macroscopic object is not. Another example is the free expansion of a gas that initially is confined to one side of a box by a membrane. If the membrane is

broken, the gas immediately expands into the other side (initially assumed to be evacuated), and we can easily tell the time reversed motion from the forward motion.

Our question now is, "Why does nature seem to be time reversal invariant at the individual, or few, particle level, but apparently not at the level of many particles contained in an ordered system like any common macroscopic object?" The answer is that, at all levels, the individual molecules are acted on by time invariant forces, and the reversed motion of an individual molecule is fully allowed by nature's laws (whether classical or quantum mechanical). The apparent violation of time reversal invariance in the gross motions of ordered systems of many molecules is due to the process of averaging over the motions of the molecules, which is necessary in order to obtain the macroscopic motions that we observe with our senses. Thus, apparent time reversal noninvariance at the macroscopic level, in spite of time reversal invariance at the microscopic level, is due to the fact that, while all macroscopic processes are insensitive to the individual motions of the molecules, they are in fact sensitive to the average over many molecules held in an ordered configuration.

2.4. Electromagnetism

French physicist Charles Augustin de Coulomb (1736 - 1806) discovered the force law obeyed by stationary, electrically charged objects between 1785 and 1791. In 1820, Danish physicist Hans Christian Oersted (1777 - 1851) discovered that an electric current produces a magnetic field, and that a magnetic field exerted a force on a current-carrying wire. From 1820 to 1827, French physicist Andre Ampere (1775 - 1836) extended these discoveries and developed the mathematical relationship describing the strength of the magnetic field as a function of current. In 1831, English chemist and physicist Michael Faraday (1791 - 1867) discovered that a changing magnetic field, which he explained in terms of changing magnetic lines of force, produces an electric current in a wire. This was a giant step forward, because it was the forerunner of the concept of force fields, which are used to explain all forces in nature today.

These disparate phenomena and theories were all pulled together into one elegant theory by Scottish physicist James Clerk Maxwell (1831 - 1879) in 1873. Maxwell's four equations describing the electromagnetic field are recognized as one of the great achievements of 19th century physics. Maxwell was able to calculate the speed of propagation of the electromagnetic field from his equations, and found it to be approximately equal to the speed of light. He then proposed that light is an electromagnetic phenomenon. Because electric charges can oscillate at any frequency, he concluded that visible light occupied only a very small portion of the frequency spectrum of electromagnetic radiation. The entire spectrum includes radio waves of low-frequency, high-frequency, very-high frequency, ultra-high frequency, and microwaves. At still higher frequencies are infrared radiation, visible light, ultraviolet radiation, x-rays, and gamma rays. All of these are fundamentally the same kind of waves, the only difference between them being the frequency of the radiation.

2.5. Waves

In the 1800s, it was known that light had a wave-like nature, and classical physics assumed that it was indeed a wave. Waves are traveling oscillations. Examples are water waves, which are traveling surface oscillations of water; and waves on a tightly stretched rope, which are traveling oscillations of the rope. Waves are characterized by three parameters, wavelength

(λ), oscillation frequency (f), and velocity (v). These parameters are related by the following equation:

$$v = \lambda f$$

It was not known what the oscillating medium was in the case of light, but it was given the name "ether." Maxwell had assumed that the ether provided an absolute reference frame with respect to which the velocity of any object or wave could be measured.

In 1881, German-American physicist Albert Michelson (1852 - 1931) and American physicist Edward Morley (1828 - 1923) performed groundbreaking experiments on the velocity of light. They found that the velocity of light on the earth always had the same constant value regardless of the direction of motion of the earth about the sun. This violated the concept, which was prevalent at the time, that the measured velocity of any object, be it particle or wave, depends on the observer's velocity relative to the velocity of the other object. This concept is clearly demonstrated in everyday life when our observation of another car's velocity depends on the velocity of our own car. Thus, the measured velocity of light relative to the ether was expected to depend on the direction of motion of the earth relative to the velocity of the ether. But, the constancy of the velocity of light meant that the concept of the ether had to be abandoned because the ether velocity could not be expected to change with the observer's velocity in just such a way that the velocity of light always had the same value. Thus, in the case of light waves, physicists concluded that there is no material medium that oscillates.

2.6. Relativity

Implicit in the preceding discussion of classical physics was the assumption that space and time were the contexts in which all physical phenomena took place. They were absolute in the sense that no physical phenomena or observations could affect them, therefore they were always fixed and constant.

In 1905, the German-Swiss-American physicist Albert Einstein (1879 - 1955) revolutionized these ideas of time and space by publishing his theory of special relativity. ("Special" means that all motions are uniform, i.e., with constant velocity.) In this theory, he abandoned the concept of the ether, and with that the concept of the absolute motion of an object, realizing that only relative motion between objects could be measured. Using only the assumption of the constancy of the velocity of light in free space, he showed that neither length nor time is absolute. This means that both length and time measurements depend on the relative velocities of the observer and the observed.

An observer standing on the ground measuring the length of an airplane that is flying by will obtain a minutely smaller value than that obtained by an observer in the airplane. An observer on earth comparing a clock on a spaceship with his clock on earth will see that the spaceship clock moves slower than the earth clock. (Of course, an observer on the spaceship sees the earth clock moving slower than his clock! This is the famous twin paradox. It is resolved by realizing that, when the spaceship returns to earth, the spaceship observer and clock will have aged less than the earth observer and clock. The difference between the two is that the spaceship has undergone deceleration in order to come to rest on earth. This deceleration, which is negative acceleration, is nonuniform motion; therefore special relativity does not

apply.)

The special theory produced the famous relationship between the energy (E) and the mass (m) of an object:

$$E = mc^2$$

where c is the velocity of light in a vacuum. Einstein's special theory has been confirmed by thousands of experiments, both direct and indirect.

In Einstein's special theory of relativity, even though space and time were no longer separately absolute, they were still Euclidean. This meant that two straight lines in space-time (e.g., in an x,y,z,t coordinate system) which were parallel at one point always remained parallel no matter what the gravitational forces were.

In 1915, Einstein completed his greatest work, the general theory of relativity. Whereas the special theory deals with objects in uniform relative motion, i.e., moving with constant speed along straight lines relative to each other, the general theory deals with objects that are accelerating with respect to each other, i.e., moving with changing speeds or on curved trajectories. Examples of accelerating objects are an airplane taking off or landing, a car increasing or decreasing its speed, an elevator starting up or coming to a stop, a car going around a curve at constant speed, and the earth revolving around the sun or the moon revolving around the earth at constant speed.

A particularly important example of acceleration is that of an object free-falling in the earth's gravity. A free-falling object is one that is acted upon only by the gravitational force, without air friction or other forces. All free-falling objects at the same spot in the earth's gravitational field fall with the same acceleration, independent of the mass or material of the object. A free-falling object, such as an astronaut in a spaceship, does not experience a gravitational force (i.e., he/she experiences weightlessness), hence we can say that the acceleration of free-fall cancels out the gravitational force. Another way to state this fact is that a gravitational force is equivalent to an acceleration. This is Einstein's famed equivalence postulate, which he used in discovering general relativity.

The equivalence postulate applies to all objects, even light beams. Consequently, the path of a light beam is affected by a gravitational field just like the trajectory of a baseball. However, because of the very high speed of the photons in a light beam (3×10^8 meters/second, or 186,000 miles/second), their trajectories are bent by only very tiny amounts in the gravitational fields of ordinary objects like the sun. Because all types of objects are affected in exactly the same way by gravity, an equivalent way of looking at the problem is to replace all gravitational forces by curved trajectories. The curved trajectories are then equivalent to curving space itself! This is the second key concept that Einstein used in the general theory of relativity. The result is that the general theory replaces the concept of gravity with the curvature of space. The curvature around an individual star or galaxy is very small and difficult to measure. Even the whole universe curves the trajectory of a light beam only a little.

Speaking of the universe as a whole, what are the effects of curved space? The principal effect is that light beams no longer travel in straight lines. Hence, if two light beams start out parallel,

they will eventually either converge or diverge. If they diverge, we say that space has negative curvature, and if they converge, we say that it has positive curvature. Zero curvature corresponds to parallel light beams always remaining parallel. This implies a Euclidean, or flat, space.

The type of curvature of the universe as a whole depends on the average mass density (the average amount of mass per cubic meter) and on the expansion rate of the universe. The fact that the universe is expanding was discovered by American astronomer Edwin Hubble (1889 - 1953) in 1929, 14 years after Einstein published his general theory of relativity. In his initial papers, Einstein had constructed a model of the universe with zero curvature that was not expanding at all. Later, in 1922 but also before Hubble's discovery, Russian physicist Aleksandr Friedmann (1888 - 1925) discovered solutions to the general relativity equations that described an expanding universe with either positive or negative curvature. Still later, in 1932 after Hubble's discovery, Einstein and W. de Sitter constructed a model that described an expanding universe with zero curvature.

Whether the space of our universe has positive or negative curvature is a matter for experimental determination. In practice, it is too difficult to do this by measuring the curvature of light beam trajectories, but the curvature can be calculated if the average mass density and the expansion velocity are known. The average mass density cannot easily be measured directly because we are unable to see matter that is not emitting its own light, so the average mass density in a galaxy, for example, must be calculated from the trajectories of the motion of the visible stars in the galaxy. Such measurements indicate that there is a large amount of matter in the universe that does not shine with its own or reflected light. This is called dark matter; its exact character is currently the subject of intense experimental and theoretical work.

There are powerful theoretical reasons for believing that the curvature of our space is neither positive nor negative but is exactly zero. Zero curvature requires a certain value of the average mass density. A larger value implies a positive curvature, and a smaller value implies a negative curvature. If the universe has zero curvature, visible matter must constitute less than 10% of the matter that exists. The rest must be dark matter.

On February 11, 2003, C.L. Bennett and D.N. Spergel reported (Science News, February 15, 2003) a new map of the early universe as recorded by NASA's WMAP satellite. By measuring minute temperature nonuniformities in the cosmic microwave background, researchers deduced that only 4 percent of the universe is ordinary matter, while 23 percent is cold dark matter, and 73 percent is so-called dark energy which accelerates the rate at which the universe expands (the dark energy is equivalent to a repulsive gravitational force). This data, refined by quasar measurements in 2004, indicates that the age of the universe is 13.6 billion years, the most accurate measurement to date, and that the map is consistent with a flat universe.

In discovering the special theory of relativity, Einstein was heavily influenced by the positivism of Austrian natural philosopher Ernst Mach (1838 - 1916). Positivism is the philosophy that states that the only useful concepts are those that depend directly on empirical observation. This attitude is derived from the belief that the only objective, external reality that exists is one that can be directly observed, such as macroscopic objects. In inventing and explaining the special theory, Einstein followed the positivist approach and made extensive use of the

empirical definitions of measurements of time and space, and he incorporated those definitions into the mathematics, which described how length and time varied with the relative velocity of observer and observed. However, Einstein abandoned positivism when he developed the general theory of relativity, and it is unlikely that he could have developed it without doing so. His concept of general relativity depended essentially on an intuitive leap from the empirical operations of measuring the force of gravity and the accelerations of objects to a theoretical model of space which was curved and in which there were no gravitational forces. He likely could not have done this without believing that space was objectively real.

In addition to curved space, a physicist who adhered to the positivist philosophy would not have discovered the electron, the atom, or quantum waves. Einstein's intuitive leap is an example of an essential aspect of the work of scientists. The individual experiments that scientists perform are always very specific to a particular problem in particular circumstances. Any attempt to comprehend the results of many such experiments on many similar topics would be futile without some kind of unifying model that is presumed to represent some aspect of the objective reality affecting those experiments.

For example, force fields are theoretical models of gravitational or electromagnetic forces, and curved space-time is a model of space-time that accounts for the gravitational force. There are other models that account for the weak and strong forces that act on elementary particles. And there are models of the nucleus, the atom, molecules, crystals, and gases. All of these models are highly mathematical, because mathematics is the universal language of physics.

When a model is found that accurately accounts for experimental observations, there is a strong tendency to think of the model itself as the objective reality. Thus, both physicists and the general public routinely speak of elementary particles, nuclei, and atoms as being real objects, rather than simply as mathematical models. We shall see later that this tendency creates innumerable problems in trying to understand the true nature of Reality.

As revolutionary as Einstein's general theory of relativity was, it did nothing to change the belief that we as observers still live within the context of space-time even though space-time is no longer thought to be absolute and unchanging. This means, for example, that we as objects are still subject to the experience of separation and isolation from other objects, and to the experience of aging and the ultimate death of the body. It took an even more revolutionary theory, the quantum theory, to begin to shake these imprisoning beliefs.

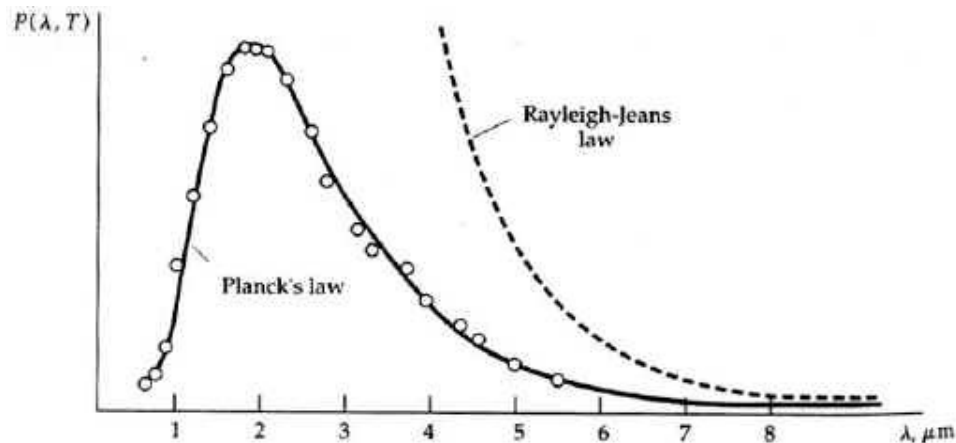
Chapter 3. Quantum physics from Planck and Einstein to Bohr, Heisenberg, de Broglie, and Schrödinger

3.1. The beginning of quantum physics by Planck and Einstein

In the late 1800s, physicists were making accurate measurements of the spectra (the intensities of light as a function of wavelength, or color) of the emissions from black bodies (objects which are opaque, or highly absorbing, to the light they emit). Good examples of black bodies are the sun, the filament of an incandescent lamp, and the burner of an electric stove. The color of a black body depends on its temperature, a cool body emitting radiation of long wavelengths, i.e., in the radio frequency range or in the infrared which are invisible to the eye, a warmer body emitting radiation which includes shorter wavelengths and appearing deep red,

a still warmer body emitting radiation which includes still shorter wavelengths and appearing yellow, and a hot body emitting even shorter wavelengths and appearing white. The emissions are always over a broad range of colors, or wavelengths, and their appearance is the net result of seeing all of the colors at once.

Classical physics could not explain the spectra of black bodies. It predicted that the intensity (power emitted at a given wavelength) of emitted light should increase rapidly with decreasing wavelength without limit (the “ultraviolet catastrophe”). In the figure below, the curve labeled “Rayleigh-Jeans law” shows the classically expected behavior.



However, the measured spectra actually showed an intensity maximum at a particular wavelength, while the intensity decreased at wavelengths both above and below the maximum. In order to explain the spectra, in 1900 the German physicist Max Planck (1858 - 1947) was forced to make a desperate assumption for which he had no physical explanation. As with classical physics, he assumed the body consisted of vibrating oscillators (which were actually collections of atoms or molecules). However, in contrast to classical physics, which assumed that each oscillator could absorb an arbitrary amount of energy from the radiation or emit an arbitrary amount of energy to it, Planck was forced to assume that each oscillator could receive or emit only discrete, quantized energies (E), such that

$$E = hf$$

where h (Planck’s constant) is an exceedingly small number whose value we do not need to present here, and f is the frequency of vibration of the oscillator (the number of times it vibrates per second). Each oscillator is assumed to vibrate only at a fixed frequency (although different oscillators in general had different frequencies), so if it emitted some radiation, it would lose energy equal to hf , and if it absorbed some radiation, it would gain energy equal to hf . Planck did not understand how this could be, he merely made this empirical assumption in order to explain the spectra. The figure above shows Planck’s prediction; this agreed with the measured spectra.

Also in the late 1800s, experimental physicists were measuring the emission of electrons from metallic objects when they shined light on the object. This is called the photoelectric effect. These experiments also could not be explained using classical concepts. These physicists observed that emission of electrons occurred only for light wavelengths shorter than a certain

threshold value that depended on the metal. Classically, however, one expected that the emission should not depend on wavelength at all, but only on intensity, with greater intensities yielding more copious emission of electrons.

In one of a famous series of papers in 1905, Einstein explained the photoelectric effect by starting with Planck's concept of quantized energy exchanges with light radiation, and making the startling assumption that these quantized exchanges were a direct result of the quantization of light itself, i.e. light consisted of discrete bundles of energy called photons, rather than the continuous waves which had always been assumed by classical physicists. However, these bundles still had a wave nature, and still could be characterized by a wavelength, which determined their color. He also used Planck's relationship between energy and frequency to identify the energy of the photon, and he used the relationship between velocity, frequency, and wavelength that classical physics had always used. Einstein received the Nobel Prize for this paper.

3.2. The development of quantum mechanics by Bohr, Heisenberg, de Broglie and Schrödinger

In addition to measuring the spectra of blackbody radiation in the 19th century, experimental physicists also were familiar with the spectra emitted by gases through which an electrical discharge (an electric current with enough energy to strip some of the electrons from the atoms of the gas) was passing. Examples of such discharges are the familiar neon sign, in which the gas is neon, and the fluorescent light bulb, in which the gas is mercury vapor (the fluorescent light bulb has special coatings on the inner walls which change the spectrum of the light). The spectra of such light sources consist of emissions at discrete, separated wavelengths, rather than over a continuous band of wavelengths as in blackbody spectra. These spectra are called line spectra because of their appearance when they are viewed with a spectrometer, which is a device used to separate and measure the different wavelengths in a spectrum.

Line spectra are another example of phenomena that could not be explained by classical physics. Indeed, the explanation could not come until developments in the understanding of the structure of atoms had been made by English physicist Ernest Rutherford (1871 - 1937) and coworkers in 1911. By scattering alpha particles (i.e., helium nuclei, which consist of two protons and two neutrons bound together) from thin gold foils, they discovered that the gold atom consisted of a tiny (10^{-15} meters) very dense, positively charged nucleus surrounded by a much larger (10^{-10} meters) cloud of negatively charged electrons. (Quantum mechanically, this picture is not correct, but for now it is adequate.)

When classical physics was applied to such a model of the atom, it predicted that the electrons could not remain in stable orbits about the nucleus, but would radiate away all of their energy and fall into the nucleus, much as an earth satellite falls into the earth when it loses its kinetic energy due to atmospheric friction. In 1913, after Danish physicist Niels Bohr (1885 - 1962) had learned of these results, he constructed a model of the atom that made use of the quantum ideas of Planck and Einstein. He proposed that the electrons occupied discrete stable orbits without radiating their energy. The discreteness was a result of the quantization of the orbits, with each orbit corresponding to a specific quantized energy for the electron. The electron was required to have a certain minimum quantum of energy corresponding to a smallest orbit; thus, the quantum rules did not permit the electron to fall into the nucleus.

However, an electron could jump from a higher orbit to a lower orbit and emit a photon in the process. The energy of the photon could take on only the value corresponding to the difference between the energy of the electron in the higher and lower orbits. Bohr applied his theory to the simplest atom, the hydrogen atom, which consists of one electron orbiting a nucleus of one proton. The theory explained many of the properties of the observed line spectrum of hydrogen, but could not explain the next more complicated atom, that of helium, which has two electrons. Nevertheless, the theory contained the basic idea of quantized orbits, which was retained in the more correct theories that came later.

In the earliest days of the development of quantum theory, physicists, such as Bohr, tried to create physical pictures of the atom in the same way they had always created physical pictures in classical physics. However, although Bohr developed his initial model of the hydrogen atom by using an easily visualized model, it had features that were not understood, and it could not explain the more complicated two-electron atom. The theoretical breakthroughs came when some German physicists who were highly sophisticated mathematically, Werner Heisenberg (1901 - 1976), Max Born (1882 - 1970), and Pascual Jordan (1902 - 1980), largely abandoned physical pictures and created purely mathematical theories that explained the detailed features of the hydrogen spectrum in terms of the energy levels and the intensities of the radiative transitions from one level to another. The key feature of these theories was the use of matrices instead of ordinary numbers to describe physical quantities such as energy, position, and momentum. (A matrix is an array of numbers that obeys rules of multiplication that are different from the rules obeyed by numbers.)

The step of resorting to entirely mathematical theories that are not based on physical pictures was a radical departure in the early days of quantum theory, but today in developing the theories of elementary particles it is standard practice. Such theories have become so arcane that physical pictures have become difficult to create and to picture, and they are always developed to fit the mathematics rather than fitting the mathematics to the physical picture. Thus, adopting a positivist philosophy would prevent progress in developing models of reality, and the models that are intuited are more mathematical than physical.

Nevertheless, in the early 1920s some physicists continued to think in terms of physical rather than mathematical models. In 1923, French physicist Louis de Broglie (1892 - 1987) reasoned that if light could behave like particles, then particles such as electrons could behave like waves, and he deduced the formula for the wavelength of the waves:

$$\lambda = h/p$$

where p is the momentum (mass times velocity) of the electron. Experiments subsequently verified that electrons actually do behave like waves in experiments that are designed to reveal wave nature. We will say more about such experiments later.

In physics, if there is a wave then there must be an equation that describes the wave. De Broglie did not find that equation, but in 1926 German physicist Erwin Schrödinger (1887-1961) discovered the celebrated equation that bears his name. He verified his equation by using it to calculate the line emission spectrum from hydrogen, which he could do without really understanding the significance of the waves. In fact, Schrödinger misinterpreted the waves and thought they represented the photons themselves. However, such an interpretation

could not explain why experiments always showed that the photons emitted by an atom were emitted at random rather than predictable times, even though the average rate of emission could be predicted from both Heisenberg's and Schrödinger's theories. It also could not explain why, when a photon is detected, it always has a well-defined position in space, rather than being spread out over space like a wave.

The proper interpretation was discovered by German physicist Max Born (1882 - 1970) in 1926, who suggested that the wave (actually, the square of the amplitude or height of the wave, at each point in space) represents the probability that the photon will appear at that specified point in space if an experiment is done to measure the location of the photon. This interpretation introduces two extremely important features of quantum mechanics:

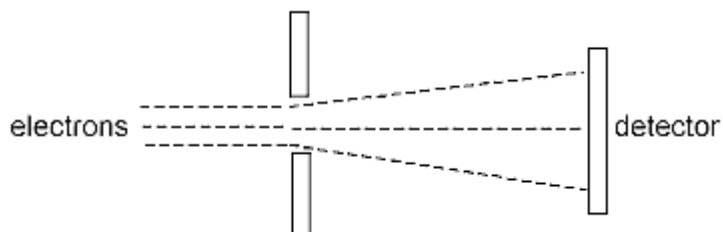
- 1) From the theory we can calculate only probabilities, not certainties (the theory is probabilistic, not deterministic).**
- 2) The theory tells us the probability of finding something only if we look, not what is there if we do not look (quantum theory is not a theory of objectively real matter).**

The Schrödinger wave is a probability wave, not a wave that carries force, energy, and momentum like the electromagnetic wave. However, the Schrödinger equation allows us to calculate precisely the wave at all points in space at any future time if we know the wave at all points in space at an initial time. In this sense, even quantum theory is completely deterministic.

3.3. Uncertainty and complementarity

As Born proposed, quantum theory is intrinsically probabilistic in that in most cases it cannot predict the results of individual observations. However, it is deterministic in that it can exactly predict the probabilities that specific results will be obtained. Another way to say this is that it can predict exactly the average values of measured quantities, like position, velocity, energy, or number of photons emitted or absorbed per unit time, when a large number of measurements is made on identical systems. For a single measurement, it cannot predict the exact results except in special cases. This randomness is not a fault of the theory—it is an intrinsic property of nature. Nature is not deterministic in the terms thought of in classical physics.

Another feature of the quantum world, the world of microscopic objects, is that it is intrinsically impossible to measure simultaneously both the position and momentum of a particle. This is the famous uncertainty principle of Heisenberg, who derived it using the multiplication rules for the matrices that he used for position and momentum. For example, an apparatus designed to measure the position of an electron with a certain accuracy is shown in the following diagram. The hole in the wall ensures that the positions of the electrons as they pass through the hole are within the hole, not outside of it.



So far, this is not different from classical physics. However, quantum theory says that if we know the position q of the electron to within an accuracy of Δq (the diameter of the hole), then our knowledge of the momentum p (=mass x velocity) at that point is limited to an accuracy Δp such that

$$(\Delta p)(\Delta q) > h \quad (\text{Heisenberg uncertainty relation})$$

In other words, the more accurately we know the position of the electron (the smaller Δq is), the less accurately we know the momentum (the larger Δp is). Since momentum is mass times velocity, the uncertainty in momentum is equivalent to an uncertainty in velocity. The uncertainty in velocity is in the same direction as the uncertainty in position. In the drawing above, the uncertainty in position is a vertical uncertainty. This means that the uncertainty in velocity is also a vertical uncertainty. This is represented by the lines diverging (by an uncertain amount) after the electrons emerge from the hole (uncertain vertical position) rather than remaining parallel as they are on the left.

Likewise, an experiment designed to measure momentum with a certain accuracy will not be able to locate the position of the particle with better accuracy than the uncertainty relationship allows.

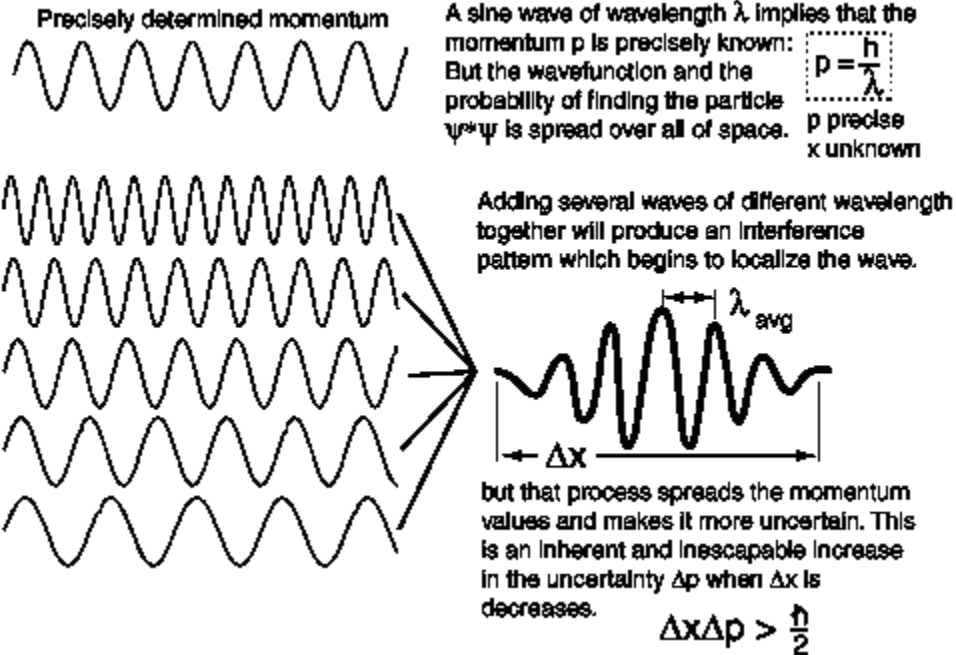
Notice that in the uncertainty relationship, if the right side equals zero, then both Δp and Δq can also be zero. This is the assumption of classical physics, which says that if the particles follow parallel trajectories on the left, they will not be disturbed by the hole, and they will follow parallel trajectories on the right.

If we divide both sides of the uncertainty relation by the mass m of the particle, we obtain

$$(\Delta v)(\Delta q) > h/m$$

Here we see that the uncertainties in velocity v or position q are inversely proportional to the mass of the particle. Hence, one way to make the right side effectively zero is to make the mass very large. When numbers are put into this relationship, it turns out that the uncertainties are significant only when the mass is microscopic, but for a macroscopic mass the uncertainty is unmeasurably small. Thus, classical physics, which always dealt with macroscopic objects, was close to being correct in assuming that the position and velocity of all objects could be determined arbitrarily accurately.

The uncertainty principle can be understood from a wave picture. A wave of precisely determined momentum corresponds to an infinitely long train of waves, all with the same wavelength, as is shown in the first of the two wave patterns below. This wave is spread over all space, so its location is indeterminate.



A wave of less precisely determined momentum can be obtained by superposing waves of slightly different wavelength (and therefore slightly different momentum) together, as is shown in the second of the two patterns above. This results in a wave packet with a momentum spread Δp (uncertainty Δp), but which is bunched together into a region of width Δx (uncertainty Δx) instead of being spread over all space.

The uncertainty relation is closely related to the complementarity principle, which was first enunciated by Bohr. This principle states that quantum objects have both a particle and a wave nature, and an attempt to measure precisely a particle property will tend to leave the wave property undefined, while an attempt to measure precisely a wave property will tend to leave the particle property undefined. In other words, particle properties and wave properties are complementary properties. Examples of particle properties are momentum and position. Examples of wave properties are wavelength and frequency. A precise measurement of momentum or position leaves wavelength or frequency undefined, and a precise measurement of wavelength or frequency leaves momentum or position undefined.

Complementarity and uncertainty strongly imply that the electron (or any other “particle”) is neither a particle nor a wave. If so, what is it? So far, we have neglected the role of the observer in all measurements. When we take that into account, we shall see (in [Chapter 6](#)) that in fact there are actually neither particles nor waves! There are only observations! But if there are no observed objects, and there are only observations, then there is no objective reality (see [Section 1.1](#)). We explore this astounding conclusion much further in later chapters.

Chapter 4. Waves and interference, Schrödinger's cat paradox, Bell's inequality

4.1. Waves and interference

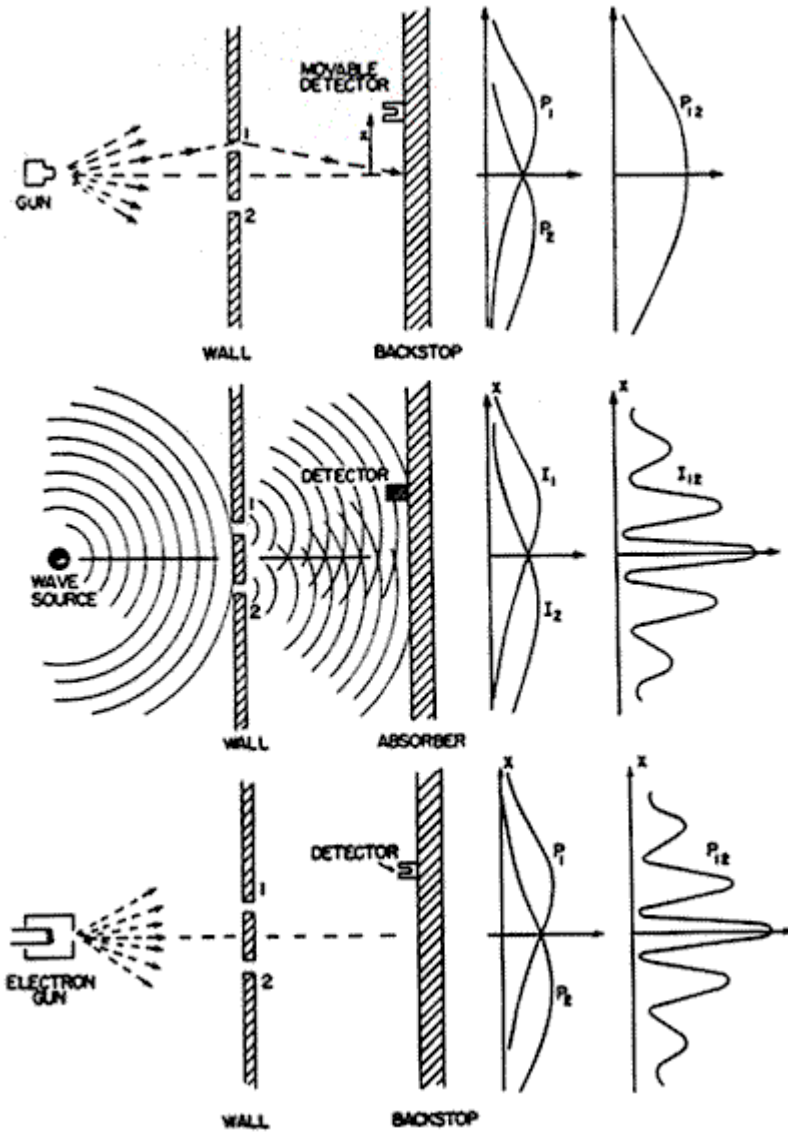
Let us review the concept of the probability wave. The quantum wave does not carry energy, momentum, or force. Its sole interpretation is that from it we can calculate the probability that a measurement will yield a particular result, e.g., photographic film will measure a specific position of an electron in an electron beam, or a Geiger counter will yield a specific number of gamma rays from a radioactive source. It is only during a measurement that a particle appears. Prior to the measurement, what exists is not something that can be determined by either quantum theory or by experiment, so it is a metaphysical question, not a question of physics. However, that does not mean that the metaphysical answer does not have considerable impact in both the scientific world and one's personal world. We will say a good deal about such implications later.

Suppose we do an experiment in which machine gun bullets are fired at a wall with two holes in it (see the top figure in the diagram below). The probability P_{12} of finding a bullet from either hole at the backstop to the right of the wall is equal to the probability P_1 of finding a bullet from hole #1 plus the probability P_2 of finding a bullet from hole #2. The probability distributions are simply additive.

When we are dealing with waves, we have a different rule. The superposition principle is one that is obeyed by all waves in material media provided their amplitudes are not too great, and is rigorously obeyed by all electromagnetic waves and quantum waves. It says that **the net wave amplitude or height at any point in space is equal to the algebraic sum of the heights of all of the contributing waves**. In the case of water waves, we can have separate waves due to the wake of a boat, the splashing of a swimmer, and the force of the wind. At any point on the surface of the water, the heights of the waves add, but it is important to include the sign of the height, which can be negative as well as positive. The height of the trough of a water wave is negative while the height of a crest is positive. When a trough is added to a crest, the heights tend to cancel. They cancel exactly if the heights of the crest and the trough are exactly equal but opposite in sign.

The superposition principle leads to the phenomenon of interference. The superposition, or sum, of two waves at a point in space where both waves have either positive or negative heights results in a summed wave with positive or negative height greater than that of either one. This is called constructive interference. If the individual heights have opposite signs, as in the example of the preceding paragraph, the interference is destructive, and the height of the summed wave is smaller than the largest height of the two.

An important measurable property of classical waves is power, or intensity I (power per unit area). Power is proportional to the square of the wave amplitude, and is always positive. Interference of classical waves is illustrated in the middle figure of the diagram, where the intensity I_{12} at the absorber is plotted. Notice the radical difference between the graph of I_{12} for the water waves and the graph of P_{12} for the bullets. The difference is due to interference. Likewise, when we observe light waves, we also observe the intensity distribution, not the wave amplitude.



For quantum waves, we already know that the property that is proportional to the square of the wave amplitude is probability. We now need to find out what interference implies for the measurement of probabilities.

Let ψ_1 and ψ_2 be the amplitudes, or heights, of two probability waves representing indistinguishable particles measured at the same point in space. (In quantum theory, these amplitudes are generally complex quantities. For simplicity, here we assume they are real.) The sum of these two heights is simply $\psi = \psi_1 + \psi_2$, so the probability is

$$\psi^2 = (\psi_1 + \psi_2)^2 = \psi_1^2 + 2\psi_1\psi_2 + \psi_2^2$$

This equation has a simple interpretation. The first term on the right is simply the probability that the first particle would appear if there were no interference from the second particle, and vice versa for the last term. Thus these two terms by themselves could represent the probabilities for classical particles like bullets, even though we do not ordinarily represent them by waves. If the middle term did not exist, this expression would then just represent the sum of

two such classical probabilities. In the top figure in the diagram, it would represent the probability that a bullet came through either the first hole or the second hole and appeared at a particular point on the screen.

The middle term on the right is called the interference term. This term appears only for wave phenomena (including classical waves like water waves) and is responsible for destructive or constructive interference since it can be either negative or positive. If destructive interference is complete, the middle term completely cancels the other two terms (this will happen if $\psi_1 = -\psi_2$). Probability distributions for waves are completely different from those for bullets because of interference. The probability distribution for electrons, labeled P_{12} in the bottom figure of the diagram, has the same shape as the intensity distribution of the water waves shown in the middle figure because both distributions are derived from the square of summed wave amplitudes.

We can now state an important conclusion from this discussion. **Whenever we observe interference, it suggests the existence of real, objective waves rather than merely fictitious waves that are only tools for calculating probabilities of outcomes.**

Consequently, in this chapter we shall assume that quantum waves are real physical waves and we therefore assume that the wavefunction is part of objective reality. However, in [Chapter 6](#) and later, we shall reexamine this assumption and suggest a subjective rather than an objective interpretation.

Remember that when we detect quantum waves, we detect particles. Since we are detecting particles, it may seem that the particle must come from one hole or the other, but that is incorrect. The particles that we detect do not come from the holes, they appear at the time of detection. Prior to detection, we have only probability waves.

What happens if we try to see whether we actually have electrons to the left of the detection screen, perhaps by shining a bright light on them between the holes and the detection screen, and looking for reflected light from these electrons? If the light is intense enough to see every electron this way before it is detected at the screen, the interference pattern is obliterated, and we see only the classical particle distribution shown in the top figure. Any measurement which actually manifests electrons to the left of the screen, such as viewing them under bright light, eliminates the probability wave which originally produced the interference pattern. After that we see only particle probability wave distributions.

4.2. Schrödinger's cat paradox

This thought experiment was created by Schrödinger in an attempt to show that the mysteries of quantum theory were not confined to microscopic objects alone. He thought the wave properties of the microworld could be transmitted to the macroworld if the former is coupled to the latter.

Imagine a closed box containing a single radioactive nucleus and a particle detector such as a Geiger counter. We assume this detector is designed to detect with certainty any particle that is emitted by the nucleus. The radioactive nucleus is microscopic and therefore can be described by quantum theory. Suppose the probability that the source will emit a particle in one minute is $\frac{1}{2}$ (50%). (The period of one minute is called the half-life of the source.)

Since the wavefunction of the nucleus is a solution to the Schrödinger equation and must describe all possibilities, after one minute it consists of a wave with two terms, one corresponding to a nucleus with one emitted particle, and one corresponding to a nucleus with no emitted particle:

$$\psi = \psi_1(\text{particle}) + \psi_2(\text{no particle})$$

where, for simplicity, we again assume the wavefunctions are real rather than complex. Now, ψ_1^2 is the probability that a measurement would show that a particle was emitted, and ψ_2^2 is the probability that it would show that no particle was emitted.

The remaining items in the box are all macroscopic, but because they are nothing more than collections of microscopic particles (atoms and molecules) that obey quantum theory, we assume that they also obey quantum theory. This has been shown to be true experimentally for some special cases of macroscopic systems, such as certain superconducting devices and superfluid systems, and for certain magnetic salts. Hence, we assume the Geiger counter can also be described by a wavefunction that is a solution to the Schrödinger equation. The combined system of nucleus and detector then must be described by a wavefunction that contains two terms, one describing a nucleus and a detector that has detected a particle, and one describing a nucleus and a detector that has not detected a particle:

$$\psi = \psi_1(\text{detected particle}) + \psi_2(\text{no detected particle})$$

Both of these terms must necessarily be present, and the resulting state ψ is a superposition of these two states. Again, ψ_1^2 and ψ_2^2 are the probabilities that a measurement would show either of the two states.

Put into the box a vial of poison gas and connect it to the detector so that the gas is automatically released if the detector counts a particle. Now put into the box a live cat. We assume that the poison gas and cat can also be described by the Schrödinger equation. The final wavefunction contains two terms, one describing a detected particle, plus released gas and a dead cat, and one describing no detected particle, no released gas, and a live cat. Both terms must be present if quantum theory can be applied to the box's contents. The wavefunction must describe both a dead cat and a live cat:

$$\psi = \psi_1(\text{detected particle, dead cat}) + \psi_2(\text{no detected particle, live cat})$$

After exactly one minute, you look into the box and see either a live cat or a dead one, but certainly not both! What is the explanation?

Until there is an observation, there is no cat, live or dead! There is only a wavefunction. The wavefunction merely tells us what possibilities will be presented to the observer when the box is opened. The observation itself manifests the reality of either a live cat or a dead cat (this is called observer created reality). Now we must ask why the observer him/her self is not included in the system described by the Schrödinger equation, so we put it in the following equation:

$$\psi = \psi_1(\text{detected particle, observer sees dead cat}) + \psi_2(\text{no detected particle, observer sees live cat})$$

We know that the observer can observe only a live or a dead cat, not both. Hence, something about the observer cannot be described by the Schrödinger equation. What is this property? The one distinguishing property that is not described by quantum theory is consciousness. Hence, some physicists conclude that it must be consciousness that defines an observation.

Until now, this discussion has assumed that the observer but not the cat is conscious. But what if the cat is conscious? Then its own consciousness will define a continuous set of observations as long as it is alive. However, there is a 50% probability that the poison gas will be released and will kill it within one minute. If that happens, its consciousness disappears. One could say that its own consciousness killed it (but, of course, without it, there would not have been a cat). All of this will be clearer after we have considered quantum theory in more detail in Chapters [6](#) and [7](#).

4.3. Bell's theorem, the Aspect experiments, and the nonlocality of reality

One of the principles considered most sacred by Einstein and indeed by most physicists up until the 1980s is the principle of local causality, or locality for short. This principle (which comes from Einstein's theory of special relativity) states that no physical effect can be transmitted with a velocity faster than light. Also implied, but not always stated, is the principle that all physical effects must decrease as the distance between the source of the effect and the observer increases. In practice, this principle prohibits not only all instantaneous action-at-a-distance, but also any action-at-a-distance when the distances are so large that the longest-range known force that can transmit signals, the electromagnetic force, cannot feasibly produce the effect.

In addition to locality, the other strongly held principle is the principle of objective reality. This principle states that there is a reality that exists whether or not it is observed. Prior to the discovery of quantum mechanics, this meant that this reality consisted of material particles or waves that always had definite physical properties, and which could become known either by making a measurement or by calculation using classical laws and a known initial state. For example, a particle always had a definite position and velocity prior to measurement, even though they may not have been known until a measurement or calculation was made. We call this strong objectivity. After the development of quantum mechanics, those who believe in an observer-created reality believe that only a wavefunction exists prior to an observation but this is still considered to be objectively real. However, its physical parameters, such as position and velocity, are indefinite until a measurement is made. This is called weak objectivity.

Weak objectivity was difficult enough to accept by some physicists, but quantum theory predicted something else that was even harder to accept--that reality was nonlocal. As we shall see in [Section 6.5](#), this means that a measurement on a system at one point in space defines the system everywhere in space simultaneously, regardless of the number of particles or their spatial locations. Local signals could not cause such an effect because they can never travel with velocities greater than that of light. A nonlocal system of particles is described by a wavefunction formed by a superposition of individual particle wavefunctions in such a way that all of the individual waves are locked together into a coherent whole. In such a coherent

superposition, it is no longer possible to identify the individual particle components. It behaves as a whole rather than as a collection of independent particles. We shall describe an example of a nonlocal system when we discuss Bell's theorem below.

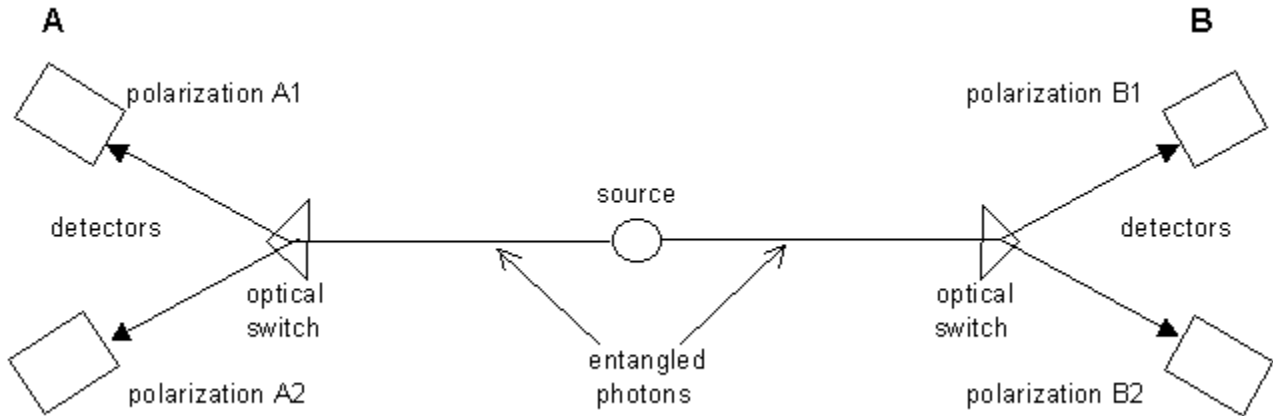
Einstein could never accept a reality which was nonlocal or which was indefinite. His paper written with Podolsky and Rosen in 1935 [the famous EPR paper, *Can Quantum-Mechanical Description of Physical Reality be Considered Complete?* A. Einstein, B. Podolsky, N. Rosen, Phys. Rev. 47 (1935) 777-780] was an attempt to use a thought experiment to show that, because quantum mechanics could not describe a reality which was both local and definite, the theory was incomplete. [Biographical note: This was Einstein's last major paper on quantum theory. Until he died in 1955, he tried to devise a "unified field theory" which would unite general relativity with electromagnetism in one theory. He failed in this because he could not accept the quantum description of electromagnetism.] Following the EPR paper, many physicists expended a great deal of effort in trying to devise theories which were complete, namely theories which allowed parameters like position and velocity to be at all times definite but unknown (hidden variable theories, which by definition assume strong objectivity), and which at the same time gave results that agreed with quantum theory. None of these theories found general acceptance because they were inelegant, complicated, and awkward to use, and the best-known version also turned out to be extremely nonlocal (David Bohm, see [Section 6.6](#)).

In 1964, John Bell (1928 – 1990, brilliant, creative Northern Ireland physicist) devised a way to determine experimentally whether reality could be described by local hidden variable theories, and derived an inequality that depended only on experimentally measured quantities, hence it was independent of any specific theory [*On the Einstein Podolsky Rosen Paradox*, J.S. Bell, Physics 1 (1964) 195-199]. Later it was realized that his theorem was even broader than he realized, and that violation of his inequality implied nonlocality whether or not hidden variables existed, i.e., whether reality is definite (strong objectivity) or indefinite (weak objectivity). Many experiments were subsequently done to test his inequality, with the results that it was always violated, thus showing that if there is a reality, it could not be local. In addition, the experiments always gave results that were consistent with the predictions of quantum theory. The best of these experiments were done by a group led by French physicist Alain Aspect in 1981-82 [*Experimental realization of Einstein-Podolsky-Rosen-Bohm Gedankenexperiment: A New violation of Bell's inequalities*, Alain Aspect, Philippe Grangier, Gérard Roger, Phys. Rev. Lett. 49 (1982) 91-94]. These results have far-reaching implications in the interpretation of quantum theory, as we shall see later.

The Aspect experiments used pairs of photons, the two photons of each pair being emitted in opposite directions from a calcium source. These photon pairs had the property that the polarization directions (the vibration directions, which are always perpendicular to the propagation direction) of the two photons of a pair were always parallel to each other, but the polarization directions of different pairs were randomly distributed. While the polarization directions of a pair were known to be always the same, they were indefinite, which means that they were undetermined until measured.

The two sides of the experiment were 12 meters apart (see the diagram below). Each side had two detectors, to detect photons with two different polarization directions. Each detector separately recorded an equal number of photons for all polarization directions, showing that the photons were completely unpolarized. Now assume the detectors were wired to measure

only coincidence counts, i.e., photons were recorded only if they were detected approximately simultaneously at A and B. Bell's inequality says that, if reality is local, a certain function F of these coincidence counts, measured for all four combinations of the two polarization angles A_1, A_2 and the two polarization angles B_1, B_2 , must be between -2.0 and $+2.0$. The experiments yielded a value for S_{expt} of 2.70 ± 0.015 . Thus Bell's inequality was violated. Furthermore, the measured value of the function F was always in agreement with the predictions of quantum theory ($S_{\text{QM}} = 2.70 \pm 0.05$), which assumes that the photons are described by wavefunctions. The conclusion is thus: **the system in the Aspect experiments is nonlocal, and it is described by quantum theory.** Indeed, in a nonlocal reality, violations of Bell's inequality will occur even if A and B are enormously far apart, even light-years!



Bell's function F is a measure of the correlations between the polarizations (vibration directions) measured at the two sides A and B. The existence of correlations does not itself prove nonlocality. In fact, correlations can exist between measurements at the two sides whether the photons are local and definite ("real" photons) or whether they are nonlocal and indefinite. If they are local and definite, correlations can exist because the two photons emitted by the source are individual particles that happen to be polarized parallel to each other. If they are nonlocal and indefinite, correlations can exist because the system is described by a wavefunction that is a coherent superposition of the waves of the two photons (an "entangled pair"). Because such a wavefunction represents a coherent whole rather than individual particles, it permits correlations that are greater than can exist with local, definite photons. That is why F is greater for nonlocal, indefinite systems than for local, definite photons, and why the violation of Bell's inequality shows that the photons are correctly described by quantum theory.

While we know that quantum theory correctly predicts the nonlocality of the systems used in the Aspect experiments, we must now ask whether nonlocality is a general feature of all systems described by quantum theory. The answer is that it is, as we shall see in [Chapter 6](#).

Even though Aspect's group showed that Bell's inequality was violated, objections were made that the correlations between the two sides might be due to some unknown type of local signal carrying polarization information from one set of detectors to the other, rather than being due to the properties of the wavefunctions. Such a local signal would have to propagate with a velocity no greater than that of light. Thus, the next set of experiments that Aspect's group did was designed to prevent any possible local signal transmission between the two sides from affecting the results [*Experimental test of Bell's inequalities using time-varying analyzers*, Alain

Aspect, Jean Dalibard, and Gérard Roger, Phys. Rev. Lett. 49 (1982), 1804 - 1807]. To do this, the decision about which polarization direction to measure on each side was not made until shortly before each photon was detected. Thus, for example, the polarization at side-B was already measured before any hypothetical local polarization signal from side-A could reach it. Therefore, a polarization measurement at A could not affect a polarization measurement at B, and vice versa. The results of these experiments were in agreement with the former ones.

It might be thought that, because nonlocal correlations can exist between events occurring at two different points, two observers at these points could use these correlations to communicate instantaneously with each other in violation of Einstein's special theory of relativity. However, the nonlocality of quantum theory implies a correlation between data sets, not a transmission of information at greater than light velocities. Thus, the special theory is not violated. We can see this by realizing that the photons detected at either A or B alone occur completely randomly both in time and in polarization. Consequently, observer A sees no information in his data alone, and likewise with observer B. It is only by later comparing these two random sets of data that a correlation between the two sets can be discovered.

There can be strong correlations between two random sets that cannot be discovered by looking at one set alone. This is illustrated by the example of random stereograms (Magic Eye diagrams, see www.magiceye.com) which, when first viewed, look like near-random patterns of colored dots. However, there are actually two separate near-random patterns present, and they are displaced from each other by a distance roughly equal to the spacing between a person's eyes. Thus, by looking at the pattern with the direction of the eyes nonconvergent as if looking some distance away, the two eyes see different patterns. The correlations between the patterns are discerned by the brain, and a three-dimensional image is seen.

Chapter 5. Conscious mind and free will

5.1. What are the characteristics of conscious mind?

Mind is the conscious experience of the functioning of the individual brain and senses. This is to be distinguished from the functioning itself. Mind has three important aspects:

a) The contents of mind: Mental contents include thoughts, emotions, feelings, dreams, and visions. Perceptual contents include those that are internal to the body as well as those that are external. Perceptual contents that are internal include sensations of pain, pressure, stretching, tension, and movement. Many of these involve emotional components as well, such as fear or pleasure. Analogs of these contents are the shadows on the wall in Plato's cave allegory (see [Section 1.4](#)), or the images on the screen in a movie theater.

b) A special case of the contents of mind is the field of mind. The field of mind varies from wide to narrow depending on the degree of focus, and can be directed towards any object. An analog is the field of view of an optical system such as a telescope or camera.

c) Another special case of the contents of mind is the subject of mind. This is the individual "I". That this is not really a subject at all but in fact is an object will be seen in Chapters [9](#) and [11](#). In both Plato's allegory and the movie theater metaphor, the subjects are the observers in the audience.

There are several ordinary states of conscious experience, the most common being waking, dreamless sleep, and dreaming. There are also altered states of consciousness that can be experienced in meditation or under the influence of mind-altering drugs. Other states are those that are experienced under hypnotic trance, sedation, or anesthesia. All of the objects of our minds are essentially private since our sensations, feelings, and emotions are entirely our own. For example, any sensation, such as "red," is an experience that we know intimately, but it is impossible to convey that experience to anybody else. We assume that each person has had a similar experience, but we can never know this to be true. Conscious experience may include the state in which there are no objects except the subject and/or the field, and even the state in which there are no objects at all. Such states are achievable in deep meditation.

5.2. Extraordinary abilities of the mind

There is a great deal of evidence that the mind is much more than merely the central processor for sensory information. A good summary of this evidence is given by Russell Targ and Jane Katra in their 1998 book, *Miracles of Mind*. The following is a brief listing of a few of the extrasensory abilities that they describe:

Telepathy: direct mental communication between one mind and another.

Remote viewing: obtaining a mental image of a remote target object at which an accomplice is located. This is different from telepathy because the image often contains details not noticed by the accomplice.

Clairvoyance: obtaining a mental image of a remote target without the aid of an accomplice.

Precognition: There are several types of precognition. A prophecy is a dream or vision of a future event when there is no possibility of taking any action that could change the future. Examples are recording a prophecy and revealing it only after the event has occurred, or prophesying in a vague, nonspecific way. Two famous prophesiers were Nostradamus and Edgar Cayce. If the precognition is specific enough to allow an action to be taken to avert a future event, then it is called a forecast, premonition, or presentiment (pre-sentiment). Example: a dream of an airplane crash that allows a person to avoid that flight.

Distant hypnosis: hypnosis of a person at a distance.

Psychic healing: a type of remote viewing and healing in which the healer actively transposes intuitive impressions into thoughts and specific healing actions to remedy a perceived problem in a patient's body.

Spiritual healing: remote healing in which the healer is in a receptive, aware, nonjudgmental state which allows his or her consciousness to be used as a conduit for healing by nonlocal, universal mind.

Energy healing: healing in which the healer directs his or her attention to the patient and concentrates on replenishing or manipulating the patient's vital energy flow. Examples are reiki, therapeutic touch, pranic healing, and chi gong.

Intuition: direct, nonanalytical awareness that can come from nonlocal mind, internal subconscious processes, psychic sources such as mind-to-mind connections, or direct clairvoyant perception of the outside world.

The existence of extraordinary abilities attained through the practice of yoga is well established and documented in the literature of yoga, where they are called siddhis. The fourth century BC sage Patanjali enumerated the following siddhis in his *Yoga Sutras* (as listed by Targ and Kutra):

“Knowledge of past and future; understanding of the sounds made by all creatures; knowledge of past lives; knowing what others are thinking; prior knowledge of one’s death; the attainment of various kinds of strength; perception of the small, the concealed, and the distant; knowledge of other inhabited regions; knowing about the stars and their motions; knowledge of the interior of the body; control of hunger and thirst; steadiness; seeing the adepts in one’s own interior light; intuition; understanding of the mind; entering the bodies of others; lightness and levitation; brightness; control of material elements; control of the senses; perfection of the body; quickness of the body.”

Modern scientific techniques have been used to determine the efficacy of remote prayer in healing. One recent example is described by Cha, Wirth, and Lobo: *Does prayer influence the success of in vitro fertilization-embryo transfer? Report of a masked, randomized trial, Journal of Reproductive Medicine. 46(9)781-7, Sept. 2001.* The conclusion from this controlled, double-blind, clinical trial is that remote prayer can indeed produce significant, positive results in a medical procedure. (For many more examples, see books written by Larry Dossey, Bernie Siegel, C. Norman Shealy, and Daniel Benor.)

For our purposes, the main conclusion that we wish to glean from these abilities is that the mind is not spatially and temporally limited simply to the material brain and its processes. This means that it or its effects extend over large regions of space, possibly over all space, and over large eras of time, possibly over all time, both past and future. We do not know which effects result from local transmission of information from one space-time point to another, and which are due to true nonlocality of the mind, i.e., instantaneous correlations between two local minds, or between a mind and an event which is remote, either spatially or temporally (see [Section 4.3](#)). Nevertheless, we shall refer to this entire property of mind as nonlocal mind. Much more will be said about this in Chapters [9](#), [14](#), and [16](#).

In addition to healing remotely, the mind can also heal locally. Proof that the mind can heal the body is given by the widespread experience of the placebo effect. Research has confirmed that a fake treatment, made from an inactive substance like sugar, distilled water, or saline solution, can have a placebo effect—that is, the sham medication can sometimes improve a patient’s condition simply because the person has the expectation that it will be helpful. For a given medical condition, it is not unusual for one-third of patients to feel better in response to treatment with placebo (*FDA Consumer magazine*, January-February 2000). The placebo effect has even been demonstrated in sham knee surgeries (*New England Journal of Medicine*, July 11, 2002), and in sham brain surgeries on Parkinson’s disease patients (*Nature Neuroscience*, May 2004).

5.3. The unity of the human mind

From this discussion, we still cannot answer the question, what is conscious mind? Can we explain it in terms of simple constituents, i.e., can we apply reductivist scientific methods to it, or is it fundamentally a unity?

In some respects, our mind appears to be a unique, unified, continuous thing that provides continuity to our lives and unity to our perception, in spite of the fact that many areas of the brain are involved in perception. We seem to be one person, not multiple persons. Even a person with multiple personality disorder thinks of him or her self as one person at any given time, but with more than one personality.

However, when we examine the mind in a little more detail, it becomes more complex. For example, what do we mean when we speak about inner conflict? Are there two minds in conflict? What about the common advice, “Love and accept yourself”, and what about our attempts to control our minds or ourselves? How many selves are there? We shall consider these questions and similar ones later in this course.

5.4. The unconscious mind

We call the state of the absence of the mind’s contents an unconscious state. We must distinguish between unconscious, mechanical functioning of the brain, and unconscious, but not purely mechanical, functioning.

Much of the unconscious functioning of the brain is completely physical or mechanical, with no mental component. Such processes could be replaced by those of a machine with no discernible difference. This is probably true for those unconscious processes dealing with the physical functioning of the body. Most of the internal organ functions are performed without our awareness, and those that are controlled by the brain are controlled by purely physical components of the brain without any awareness.

However, there are other unconscious processes that might not be completely mechanical. Everybody has had the experience of a creative solution to a problem arising spontaneously after a period of unconscious ferment such as after a night’s sleep, or after (or during) a meditation. This process of creativity has three stages: saturation (gathering and absorption of all pertinent information), incubation (letting this information “cook” in the mind), and illumination or manifestation (the genesis of the new concept). The latter two stages are largely unconscious. It seems unlikely that they could be purely mechanical and still give birth to something entirely new. Of course, it would be difficult to prove that such concepts are in fact totally new, rather than some rearrangement of previously learned concepts.

5.5. Is there a test for consciousness?

What objects are conscious? This question was also asked in Sections [1.2](#) and [1.3](#). Because other human beings behave like we do, we assume that they are conscious. But is such behavior proof of consciousness? Some animals exhibit human-like behavior. Are they conscious? If so, are fish and plants also conscious? What about amoebas? Does consciousness come in degrees, so that everything is conscious to some degree? The

problem with answering the question, “What is conscious?”, is in devising a test that tells us whether something is or is not conscious. Such a test does not exist in science because it would have to measure directly an object’s consciousness rather than its behavior.

To reveal the difficulties in this type of measurement, suppose that my mind is directly sensitive to your mind without my depending on any cues from your behavior or your physical reactions. We might think that such might be the case in certain kinds of telepathic events. Now, for example, could we determine whether my experience of “red” is the same as yours?

The answer is no because my experience of red is still inescapably in my mind, never in yours. Thus, a telepathic technique does not give us a way to determine whether my experience of red is the same as yours. Furthermore, no matter what the technique, there is always the problem that the person interpreting the measurement is aware of only the contents of his own mind, never of anybody else’s.

This does not mean that minds cannot communicate with each other. Nonlocal consciousness allows this (see Sections [5.2](#), [9.2](#), [9.4](#), [14.1](#), [14.2](#), [Chapter 16](#)).

5.6. Can a machine be conscious?

If we knew what consciousness was, we might be able to construct a conscious machine, at least in principle. At present, we cannot design a conscious machine, but it might happen that one is made at some time by accident.

As mentioned above, there are no known tests for consciousness at present. The best we can do is to observe behavior and compare it with that of human beings. However, as we saw in the previous section, human-like behavior is not proof of consciousness. If there were genuine tests for consciousness, then it might be possible to design a machine that would conform to such tests, and therefore would be conscious.

In 1950, English mathematician Alan Turing (1912 - 1954) proposed a test to determine whether a computer can think. He posed the question, “Suppose a human, after extensive conversations with the computer, cannot distinguish between the responses of the computer and those of a human, then might the computer be intelligent?” Because we know that some deterministic systems behave chaotically and unpredictably, even a deterministic computer could be as unpredictable as a human.

We might think that a very complex computer might be capable of understanding, and if understanding is part of consciousness, then a computer might be conscious. However, we can prove that a computer, no matter how complex and no matter how much its behavior mimics human behavior, need not be capable of understanding. This is shown by the famous test invented in 1980 by English-American philosopher John Searle (1932 -). Its purpose was to show that a human being can perform any function that a computer can (although much slower) without having any understanding of the meaning of the function. Hence, if the human need not understand, the computer need not either. A computer takes a set of input statements, operates on them by means of a predetermined algorithmic procedure, and produces a set of output statements. Although it does this electronically, the same procedure could be done by means of mechanical operations on mechanical components. A human could

take the same input statements (in a readable, but not understandable, form) and by merely following instructions (the algorithm) perform all of the mechanical operations without any understanding of the meaning of the input-output statements or the algorithm. Thus the computer need not understand either.

If consciousness really is a function of complexity, then an extremely complex computer might be conscious. But what would be the function of consciousness in a computer that operates algorithmically, i.e., by following a prescribed procedure?

In 1931, Austrian-American mathematician Kurt Gödel (1906 - 1978) showed that, in any finitely describable, logical system (one that can be described by a finite number of statements), that is self-consistent and that contains the rules of arithmetic, there are true statements that are not theorems of the logical system. His proof shows that these true statements can be seen to be true even though they are not theorems.

In order to discuss this theorem, we first define what we mean by a logical system. Consider the statements

$$a > b \text{ and } b > c$$

where a , b , and c are integers. We assume that both statements are true, i.e., that they are the axioms. Then we must conclude that

$$a > c$$

This is a theorem that must be true if the axioms are true. This is an example of the simplest possible axiomatic logical system. It consists of a set of axioms, which are accepted but are not proved, and the set of all of the theorems that follow from the axioms.

Gödel's theorem shows that no logical system can produce all of the true statements that are possible. In other words, there are some true statements that cannot be proved within any logical system. A conclusion one might draw from this theorem is that a conscious mind can learn truths that a computer following the rules of logic can never discover. This might mean that a deterministic computer can never model a conscious mind, or no deterministic computer can be conscious no matter how complex it is. Furthermore, it might mean that no scientific theory (which is a logical system) can explain everything, possibly including consciousness. That would mean that it might never be possible to conceive a true Theory of Everything. (A Theory of Everything is the holy grail of physics. It is a theory that would determine all physical laws and physical constants without inputting any numerical values.)

In *The International Journal of Theoretical Physics* 21 (1982), pp. 467-488, the American theoretical physicist Richard Feynman (1918 - 1988) showed that a classical computer (that is, a deterministic one) can never simulate nonlocality. Thus, if nonlocal mind really exists, a classical computer could never simulate a human mind.

Humans exhibit creativity, which is a discontinuous pattern of thought. It is difficult to see how a deterministic computer, even if chaotic, could operate discontinuously.

Humans seem to have a sense of inner connection with other humans that could not exist between human and machine, no matter how complex. This connection, which may be a manifestation of nonlocal mind, may be impossible to simulate in any kind of machine.

5.7. What seem to be the effects of consciousness?

Does consciousness affect the physical world? It does indeed seem to have an effect on the physical world, although one must be cautious about this:

- a) We are unaware of much of what the body does so consciousness seems to play no role in such functions.
- b) Much of what we do consciously would not be different if we were not conscious (see [Section 5.9](#) also). Does the fact that our perceptions and understanding are conscious actually make a difference? Would not cleverness without consciousness be as good as with consciousness?
- c) If animals are unconscious, then those aspects of human behavior that are like animal behavior are apparently unaffected by consciousness.

However, there are ways in which the physical world seems to be directly affected by consciousness, e.g., books are written about it, we talk about it, courses are given about it, consciousness of suffering stimulates many people to understand suffering and thereby to avoid it, and the desire to become more conscious is the main motivation for most spiritual seekers.

5.8. When and how does a child begin to perceive objects?

Is the perception of separate objects an ability that the child learns from its parents, or is it an innate function of the developing physical brain? There has been much research on the development in the infant of the ability to perceive separate objects and to conceive of them as existing independently of the infant's perception of them.

In his book *Visual Intelligence* (1998, pp. 12-16), Donald D. Hoffman describes the development in the child of the mind's ability to make conceptual sense out of the confusion of retinal images presented to it:

“Among the most amazing facts about vision is that kids are accomplished geniuses at vision before they can walk. Before age one, they can construct a visual world in three dimensions, navigate through it quite purposefully on all fours, organize it into objects, and grasp, bite, and recognize those objects . . . By about the age of one month, kids blink if something moves toward their eyes on a collision course. By three months they use visual motion to construct boundaries of objects. By four months they use motion and stereovision to construct the 3D shapes of objects. By seven months they also use shading, perspective, interposition (in which one object partially occludes another), and prior familiarity with objects to construct depth and shape. By one year they are

visual geniuses, and proceed to learn names for the objects, actions, and relations they construct . . .

. . . each child constructs a visual world with three spatial dimensions—height, width, and depth. But an image has just two dimensions—height and width. It follows that, for a given image, there are countless 3D worlds that a child could construct . . .

. . . This ambiguity holds not just for depth, but for all aspects of our visual constructions, including motion, surface colors, and illumination. . .

. . . This makes the task sound impossible. How could a child sort through countless possible visual worlds and arrive at much the same answer as every other child?”

Hoffman concludes that all children are born with the same rules by which they construct their visual worlds, and which allow each of them to see much the same world as any other child. Thus, the principal prerequisite for perceiving objects turns out to be an inherited predisposition to do so. Hoffman argues that the universal rules of vision parallel the universal rules of language (see Noam Chomsky, *Reflections on Language*, 1975) by which a child’s ability to learn a language is also part of its heredity.

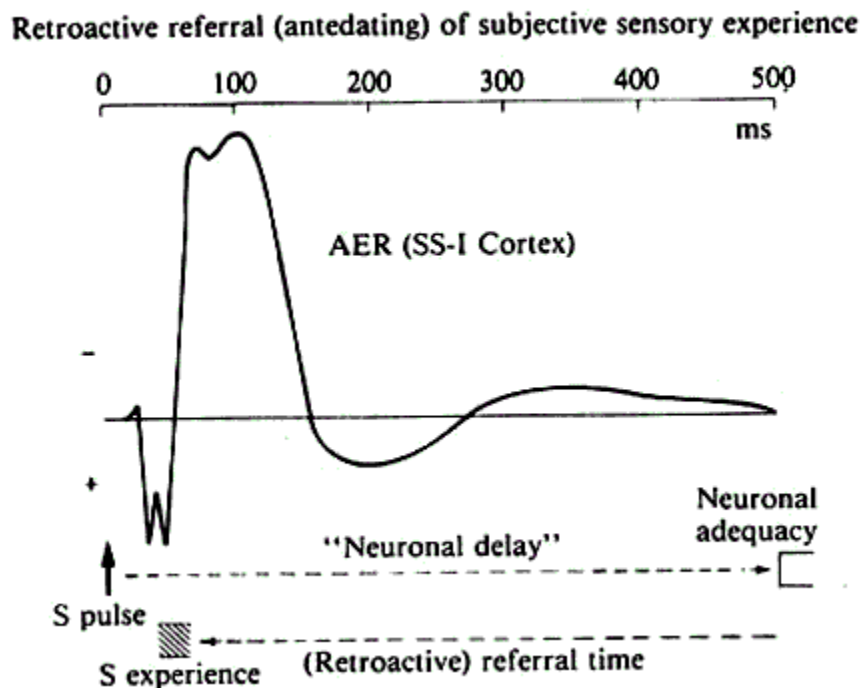
An important special example of the infant seeing separate objects is its perception of its mother as an object beginning at about 4 months (see, e.g., *Child Development and Early Education*, by Pauline H. Turner, 1994, pp. 58-59). After about 8 months, the child begins to perceive itself as an object separate from its mother, this process becoming complete at about 15 months. It seems likely that these developments must also be a result of the child’s inherited abilities.

We conclude from these studies that our ability to perceive separate objects and individuals is a product of our innate tendencies. Yet, as we shall soon see, the perception of separation is the basis of all of our suffering. Thus, it seems that we are all born with a tendency to suffer. Fortunately, this depressing thought is not the whole truth. We are told by the sages that separation is merely a mistaken perception and that this mistake can be corrected. But before it can be corrected, it must be understood. Gaining this understanding is the objective of much of the remainder of this course.

5.9. The experiments of Libet, et al., and their implications for free will

In a ground-breaking series of experiments first reported in 1973, Benjamin Libet, et al. [*Subjective referral of the timing for a conscious sensory experience: a functional role for the somatosensory specific projection system in man*, by Libet, Wright, Jr., Feinstein, and Pearl, *Brain* 102 (1979) 193-224] showed that the earliest experiential awareness of a sensory stimulus occurs about 500 msec (0.5 sec) after the stimulus itself (see diagram below). These experiments involved applying small electrical pulses to the skin of the hands of patients who were undergoing brain surgery, and then measuring the resulting electrical signals from electrodes implanted in the sensory cortex. The initial negative pulse is the primary evoked

potential resulting from the nerve impulse traveling from the hand to the brain---it appears 10-30 msec after the skin stimulus. The following wave (average evoked response AER) is the brain's response to the stimulus.



The experiments showed that none of our experiences of perception are in objective time (time as measured by a clock or other instrument), but in fact are delayed by about one-half second after the objective events. This delay is the time required for the AER to rise to the level necessary for experiential awareness (neuronal adequacy). (Other experiments showed the necessity of neuronal adequacy for subjective experience to occur.) This means that it is impossible to respond volitionally in less than 500 msec to any external stimulus since our experience is always delayed by that much. [Libet, et al. also showed that meaningful but unconscious, reflexive behavioral responses can occur in as little as 100 msec after a stimulus, showing that meaningful behavior need not be conscious behavior (e.g., a sprinter exploding from the blocks after the starter's gun fires).]

(In addition, Libet, et al. showed that our experience of the stimulus precedes neuronal adequacy because the brain refers the experience retroactively to the time of stimulus, as is shown in the diagram. This required a series of experiments involving electrodes implanted in the sensory pathway to the brain called the medial lemniscus bundle, as well as those implanted in the sensory cortex.)

In 1983, Libet, et al. [*Unconscious cerebral initiative and the role of conscious will in voluntary action, The Behavioral and Brain Sciences*, 1985, 529-566] reported an even more profound set of experiences in which a different set of subjects, these without implanted electrodes, were "volitionally" initiating muscular acts rather than responding to sensory stimuli.

Electromyogram signals from a designated trigger finger were used to initiate computerized recordings of the EEG responses (the readiness potential, RP) that had appeared on the scalp prior to the triggers [see diagram below from Alexander Riegler, *Whose Anticipations?* (2003) at <http://www.univie.ac.at/constructivism/people/riegler/abstracts.html#riegler03anticipation>].

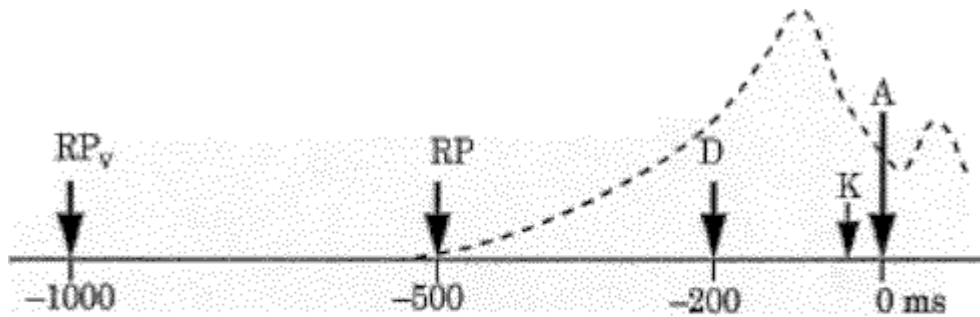


Fig. 1: Sequence of readiness potential (RP), volitional decision (D), and onset of action (A), as well as the control stimulus on the skin (K). If the action is planned ahead, the readiness potential starts already at time RP_v . After Libet (1985).

The results showed that the onset of the readiness potential RP preceded the finger action A by 550-1050 msec, but the experiential awareness of the willingness to perform the action preceded the finger action by only about 200 msec. (This awareness could not be signaled by finger motion because that would require another decision for muscular action. It was measured by having the subject associate his reading of an electronic clock with the onset of his awareness of the decision.) Thus, **the decision to perform a muscle act is made prior to the awareness of the decision.** In other words, we become aware of a decision only after the decision has already been made. Libet speculated that it may be possible to consciously veto such an unconscious decision if it is done within the last 100-200 msec before the action is to occur. However, because there is no muscle action to trigger the recording of a veto event, experimental verification of conscious veto decisions is not possible. Regardless of that, the possibility of volitional veto decisions is overruled by the considerations in the following paragraph, and by those in Sections [5.10](#) and [5.12](#).

Libet's experiments point to a general concept that a little thought shows must always be valid. This is that **everything that happens must happen before we can become aware of it.** Any neurological or sensory process always happens before our awareness of the thought, feeling, or sensation that represents it. In Libet's experiments, the lag of awareness was between 350 msec and 500 msec, but the exact value is unimportant. So long as this lag exists, no matter how large or small, whether it is one hour or one microsecond, our subjective experience of an event must always come after the objective measurement of the event. In other words, the subjective present always lags the objective present, or subjective time always lags objective time. [Because the brain requires about 500 msec to process an event before we can become aware of it, it is impossible for us to be aware of any instant in which the brain ceases to function, such as the instant we fall asleep (either naturally or under anesthesia), or the instant we die.]

The consequences of this insight are extraordinary, revolutionary, and far-ranging. Every thought, feeling, sensation, or action always occurs objectively before we become aware of it subjectively and hence there is no possibility that we can avoid it. This includes any choices or decisions that are made. **We inescapably live in the objective past so that the objective present and future are completely beyond our awareness and control.**

5.10. Free will as the possibility of alternative action

The following discussion of free will comes from Chapter 7 of the 1990 book by Euan Squires, *Conscious Mind in the Physical World*.

A common definition of free will is the following: A decision is free if an agent could have decided differently.

In order to clarify this definition, we divide the universe into two parts, the agent and the external circumstances. **Our conclusions are the same regardless of how this division is made.**

We now compare the reaction of the agent in its circumstances with those of an inanimate sensing object like a thermostat. If we first consider the reactions of two identical agents in two different situations, one with different circumstances, and one with identical circumstances, the agent can decide differently only as follows:

a) A decision is free if, in different circumstances, identical agents can make different decisions. This cannot be the meaning of free will since it would also be true if the agent were a thermostat.

b) A decision is free if, in identical circumstances, identical agents can make different decisions. This cannot be the meaning of free will because this implies randomness, not free will, and would be true of any nondeterministic, inanimate agent, such as one that functions randomly or quantum mechanically.

The following table summarizes the alternatives:

Agents	Circumstances	Decision	True for thermostat?
identical	different ("Given different circumstances, even if I were exactly the same person I was then, I would choose differently")	different	yes
identical	identical ("Given the same circumstances, even if I were exactly the same person I was then, I would choose differently")	different	random decision
different	identical ("Given the same circumstances, knowing what I do now, I would choose differently")	different	yes

The first two possibilities are the only ones available for identical agents. Of course, different agents will react differently to the same circumstances because "different" means "not identical". Thus, the third possibility does not imply free will because a different thermostat in the same circumstances will react differently also.

This discussion reveals the problems with any definition of free will based on the circumstances surrounding a decision. The circumstances may include the agent's thoughts, feelings, emotions, sensations, perceptions, and actions if these are thought of as being external to the agent. **Thus, if we try to define free will by considering the reaction of the agent to its circumstances, we are forced to the conclusion that free will as we have defined it does not exist.**

Notice that the concept of free will can arise only if there is an agent that is separate from its surrounding circumstances. This separation is the essence of duality (see Sections [11.1](#), [11.2](#)). Without duality, there is neither the agent nor that which is acted upon, so free will has no meaning.

5.11. The origin of the belief in free will

The belief in free will appears to originate in a mental model that we have of ourselves. "I" appear to be separated into an inner and an outer part, which we shall call I_i and I_o , respectively. The division may be between the mental and the physical, between some combination of the two, or more likely between two different mental parts. We think of I_i as having free will and being the controlling part, and I_o as having no free will and being the controlled part. In this way, the separate individual entity (I_i) may believe he/she is free to control the mind and/or body (I_o). However, if we are asked what part of the mind is the controlling part and what part is the controlled part, we are never able to provide a consistent answer.

We see from this model that the separation of the universe into agent and surroundings discussed in [Section 5.10](#) really is a separation within the mind-body organism. The belief in free will depends on our perception of an inner-outer duality within us. Without the perceived separation of ourselves into an inner object that controls and an outer object that is controlled, we could not have this belief, and free will would not be a concept that would ever arise. (In fact, as we shall see later, the belief that we are split is equivalent to the belief in free will.) Inner-outer duality actually exists in a dualistic philosophy, but in a monistic philosophy, whether materialist or idealist, it could exist only apparently, never actually.

5.12. Is free will necessary for our happiness?

The existence of free will would imply that we should be free to choose our thoughts, feelings, emotions, and actions as we desire. However, are we really free to choose our thoughts and emotions? If so, why do we choose desires that cannot bring us happiness, such as any desire for the unobtainable? Why do we choose emotions like guilt, hatred, anger, envy, or lust? In fact, why are we ever unhappy? Why are we not always happy if we are free to choose happiness? In fact, even more profoundly, why can't we just stop thinking and feeling if we choose to? Our experience tells us that we cannot choose the thoughts and feelings that we will have 30 seconds from now, much less those of a day or week from now, and, worse, we cannot even stop thinking or feeling at all. In fact, every unbidden thought or feeling we have is more evidence that we are not free to choose. Thus, to pin our happiness on a chimera such as free will must doom us to a life of frustration, anger, and hopelessness.

However, the opposite approach of giving up freedom is decidedly not the answer. To resignedly and fatalistically accept whatever crumbs our minds and the world throws our way is hardly a happy solution. The real solution requires us to discover what true freedom is.

5.13. Freedom as subjectivity

In spite of the prevalent belief in free will, it is not possible to show that free will objectively exists within the split self, as the previous sections showed. Something other than a split self must be the source of freedom. This something is pure consciousness, which is unified, nondual, unsplit, and totally free, as we shall see in Part 2. Freedom is pure subjectivity and is an intrinsic property of pure consciousness. There is no other way of defining freedom because the subjectivity of freedom transcends the existence or nonexistence of free will. Free will refers to the existence of choice, while freedom as subjectivity exists even in the absence

of freedom of choice. In fact, we can say that true freedom is freedom from the burdens and responsibilities of an imagined free will.

In a completely determined universe, would freedom be possible? In such a universe, there could be no objective freedom of choice. However, the absence of objective freedom does not preclude the subjectivity of freedom independently of the objective circumstances.

Thus, the subjectivity of freedom can exist whether or not the phenomenal world is completely determined. This compatibility between freedom and determinism is called compatibilism. It implies that freedom and determinism refer to different levels of reality, the purely subjective vs. the purely objective, or noumenality vs. phenomenality.

In an objectively determined universe, as is assumed by classical physics, how can there be an actual split between an inner, controlling object and an outer, controlled object? In such a universe, every object is inextricably connected with every other object, whether causally, reverse-causally (see next section), or in some combination thereof, and therefore there is no way to distinguish between a controlling object and a controlled object. Any belief in a split would then have to exist in spite of the objective evidence that an actual split is impossible.

In a probabilistic universe, as is assumed by orthodox quantum mechanics, we still must ask the question, how does the perceived inner-outer duality arise? What can take two objects and identify one as inner and the other as outer? If we can answer this question, we may also be able to answer the question, how does the belief in free-will arise? We shall present a quantum theoretical model that attempts to answer both of these questions in [Chapter 7](#).

5.14. If there is no free will, how do things happen?

Since there is no free will, the brain must function in a purely stimulus-response mode, where a stimulus can come from either an event that is perceived by the senses, or from one that arises in the mind itself, like a thought or feeling. We now consider such a model of the brain.

A computer is a crude and inadequate, but still useful, analog of the brain (which we will assume includes the entire nervous system). The design and memory of a computer are analogous to the genetics and memory of the brain, while the programming of a computer is analogous to the conditioning of the brain. Just as a computer does only what its design and programming permit it to do, the brain does only what its genetics and conditioning permit it to do.

A computer acts on an input and generates an output, while a brain acts on a stimulus and generates a response. However, while the computer functions completely deterministically, the brain most likely functions both deterministically and probabilistically (see next section and [Chapter 7](#)).

Most computers are programmed in specialized programming operations by humans or other computers (in artificial intelligence applications, computers may also be programmed by their input-output operations). In comparison, the body is conditioned continuously through all of its stimulus-response interactions, including not only local interactions with the environment, but also through nonlocal interactions of nonlocal mind (see [Section 5.2](#)). (Actually, this conditioning resides not only in the brain and nervous system but also in every organ of the body that possesses a memory, however rudimentary, such as the musculature.) Thus, the

enormous differences between a computer and a brain rest on 1) the differences between the primitiveness of a computer's design and the complexity of the body's structure, 2) the differences between the limitations of the purely deterministic functioning in computers and the open-endedness of the probabilistic functioning in the brain, and 3) the differences between the restrictions of the specialized, local interactions of a computer and the vastness of the continuous, local, and nonlocal interactions of a brain.

5.15. Speculations on the future in determined and probable universes

What does the existence of precognition and prophecy ([Section 5.2](#)) imply about the future? Here are several possibilities:

1. The future might be predetermined because of strict, deterministic causality, which implies that the past completely determines the present and future. This is the paradigm of classical physics, which is no longer thought to be valid.
2. It might be determined probabilistically, but not completely, by the past. This is the paradigm of quantum mechanics and modern physics. It implies that all experiences of precognition and precognized events are probabilistic rather than certain.
3. It might be determined through an unconventional causality that operates in a time-reversed direction so that the future rather than the past determines the present. This is the concept of destiny, which will be discussed more fully in [Section 14.5](#). There is nothing in either classical physics or quantum physics that precludes this because microscopic physical laws are equally valid in the time-reversed direction and in the forward direction. The only reason that we apply the laws in the forward direction is because we have knowledge of the past but not of the future, which we try to predict. (The law of entropy, which was discussed in [Section 2.3](#), is a macroscopic law not a microscopic one, and would not invalidate reverse causality because it determines only the direction of time, not the direction of causality.)
4. It might be determined by a combination of forward and reverse causality such that forward causality determines the future probabilistically, while reverse causality operating backward in time resolves this uncertainty and makes it certain. That is, certainty could be forced by the need for consistency between the results of causality operating in the two directions.
5. It might not be determined at all until somebody had an experience of precognition. Precognition could establish a correlation between a precognition experience in the present and the precognized event in the future. Prior to precognition, as in orthodox quantum mechanics, both the present event and the future one might be only probabilistic rather than certain. In the terminology of [Chapter 6](#), wavefunction collapse might then manifest both the precognition event in the present and the precognized event in the future. This would be an example of how two temporally separated events could be correlated in time, similar to the way two spatially separated events are correlated in space in the Bell-Aspect experiments described in [Section 4.3](#). How any of this could happen is unknown.
6. All of the past and future may exist now, and it may be only a limitation of our perception that prevents us from seeing more than the perceived present (note the distinction between the

objective present and the perceived present as discussed in [Section 5.9](#)). This possibility is discussed more in Sections [14.1](#) and [14.5](#).

We must be clear that any concept of a future that is determined, or of a causality that operates in reverse time, is a purely metaphysical concept, and there may be no experiments or observations that could ever distinguish between them. These are different from the concepts of physics, which, even though admittedly based on a metaphysical concept (see [Section 1.1](#)), can be either validated (although not proved) or invalidated by experiment and observation.

Chapter 6. What does quantum theory mean?

6.1. The interpretation problem

6.1.1. Interpretation in terms of an objective reality

Most physicists think that quantum mechanics is not complete without an interpretation in terms of an objective reality, which is presumably what is described by experimental observations as interpreted by the theory. There are at least three general categories of objective interpretation:

a) Quantum theory is not correct as it stands. It must either be modified to describe the process of measurement, or it must be supplemented to include the phenomenon of wavefunction collapse, which we shall describe later. The “orthodox” interpretation belongs to the latter category.

b) Quantum theory is correct as it stands, but the wavefunction is not a complete description of the system. It must be supplemented by the addition of “hidden variables”, i.e., the positions and velocities of all of the particles at all times. In this interpretation, the particles are always present. The wavefunction is no longer interpreted as a probability, but is the source of a quantum force (also a hidden variable) which acts on the particles in addition to all of the classical forces like the electromagnetic and gravitational forces.

c) Quantum theory is as correct and as complete as possible. This leads to the “many-worlds” interpretation.

6.1.2. Interpretation in terms of subjective knowledge

On the other hand, some physicists assert that, if there is an objective reality, it cannot be described by quantum theory. They think the theory can be used only to calculate the probabilities for the different possible outcomes of any given measurement or observation. To them, this is the only interpretation that quantum theory has. This can be called a subjective interpretation because the wavefunction reflects only our knowledge of a situation rather than describing an objective reality.

6.2. The orthodox interpretation

In this interpretation, before a measurement there are no particles, only a wavefunction that is

a complete description of the system, i.e., no other information about the system is possible. At the time of measurement, the results of the measurement are observed, so the wavefunction must change from a probability wave that includes all of the possibilities that existed before the measurement to one that describes only the possibilities which are allowed by the measurement. This is called reduction, or collapse, which is not explained by the theory. In this interpretation, the wavefunction is the only objective reality that exists prior to a measurement.

6.3. What can make a measurement in the orthodox interpretation?

(In this and the following two sections, we draw heavily on Chapter 11 of the 1990 book by Euan Squires, *Conscious Mind in the Physical World*.) We will first show that any system that is completely described by quantum theory cannot exhibit wavefunction reduction. In order to do this in the most efficient manner, we will use a symbolic notation that makes the description concise and precise. Do not let this frighten you--it is simply a notation, not higher mathematics. The notation will refer to a particular type of experiment with particles that have spin. The spin of a particle is related to its rotation. A macroscopic analog is a spinning top. We can say that if the top is spinning normally on a flat, smooth surface, the spin (like the top) is pointing down. If for some reason, the top flips so that it spins upside down (there are tops that do this), we can say the spin is pointing up. Particles with spin (like the electron) can have their spins pointing either up or down.

We start with an experiment in which an incoming electron is in a superposition of spin-up (+) states and spin-down (-) states. By superposition, we mean that the wavefunction is a sum of two terms, one describing the + state, and one describing the - state. This is an example of what is called a "pure" state. The notation we now introduce is called the Dirac "ket" notation. Instead of writing the wavefunction simply as ψ as we did before, we enclose it in ket brackets and write $|\psi\rangle$. We do the same with the notation for the + and the - states, and obtain

$$|\psi\rangle = \alpha|+\rangle + \beta|-\rangle$$

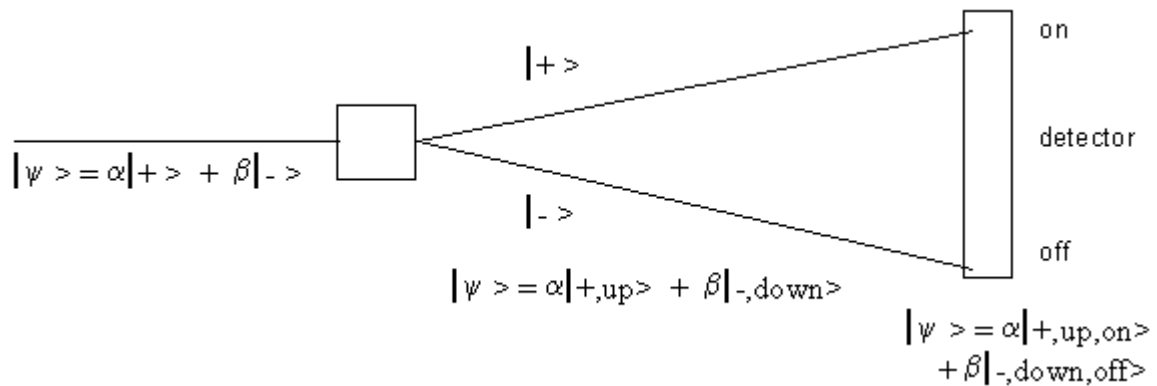
All this equation says is that the electron is a wavefunction consisting of a superposition of a spin up component and a spin down component. Here, $|\alpha|^2$ is the probability that a measurement would result in a spin-up particle, and $|\beta|^2$ is the probability that it would result in a spin-down particle. (These are written with absolute value signs because α and β are in general complex quantities. However, this detail need not concern us here.)

We now send this electron into a "Stern-Gerlach" apparatus. This contains a nonuniform magnetic field which causes the $|+\rangle$ component of the wavefunction to go upward and the $|-\rangle$ component to go downward. Therefore, after the electron passes through the apparatus, the Schrödinger equation tells us that it is described by the pure state wavefunction

$$|\psi\rangle = \alpha|+,up\rangle + \beta|-,down\rangle$$

where it is obvious that $|+,up\rangle$ goes up and $|-,down\rangle$ goes down. This wavefunction is not arbitrary--given the initial state wavefunction and the characteristics of the Stern-Gerlach apparatus, the Schrödinger equation dictates this form. We now send the electron into a detector, which records "on" if the $|+\rangle$ component is detected and "off" if the $|-\rangle$ component is

detected. (The labels "on" and "off" are purely arbitrary. They could also be called, e.g., "1" and "2".) To make this clear, a diagram is shown below.



We assume that the detector, like the rest of the system, is described by the Schrödinger equation. We must then include the states of the detector in the wavefunction, and the pure state becomes

$$|\psi\rangle = \alpha|+,up,on\rangle + \beta|- ,down,off\rangle$$

This leads to a very important conclusion. **Any object in the system that can be described by the Schrödinger equation must be included in the superposition of terms describing the system.** The Schrödinger equation always converts a pure state into a pure state. A pure state wavefunction will always be a superposition, which means that there is a probability of finding the system in either state.

Reduction, or collapse, of the wavefunction requires going from a pure state consisting of a superposition to a final state consisting of only one term because the reduced wavefunction must describe the detector being in either one state or the other, but not both. **Therefore, no object that can be described by the Schrödinger equation can reduce the wavefunction, i.e., make a measurement.**

6.4. Wavefunction reduction in the orthodox interpretation; the forward direction of time

Now suppose that I look at the detector and that I also can be described by the Schrödinger equation. Two components are needed to describe me, which we will call me^+ and me^- , with the obvious connotations. The final wavefunction will be the pure state,

$$\psi\rangle = \alpha|+,up,on,me^+\rangle + \beta|- ,down,off,me^-\rangle$$

However, if I am aware of the final state of the detector, this wavefunction cannot describe the combined system since I know that the detector is either in the "on" state or the "off" state. Something that cannot be described by quantum mechanics has reduced the wavefunction. If we assume that any physical system can be described by quantum mechanics, then reduction must have been caused by something nonphysical. The obvious nonphysical attribute that I possess is awareness.

In the Schrödinger cat paradox of [Section 4.2](#), I observe the cat in either the live state or the

dead state, not both. If awareness reduces the wavefunction, it is either my awareness or the cat's that does it. It is a metaphysical question which of the two awarenesses it is because what I see when I open the box will be exactly the same in either case.

Because most physicists are materialists and believe that consciousness is at most an epiphenomenon, they do not like to admit that consciousness is needed to reduce the wavefunction. Rather, they prefer to think that it is some physical property of macroscopic devices that causes reduction. Of course, if that is the case, that property at present cannot be described by quantum theory, so to them, quantum theory is presently incorrect. (However, inconsistently, most do not believe that to be true, either.)

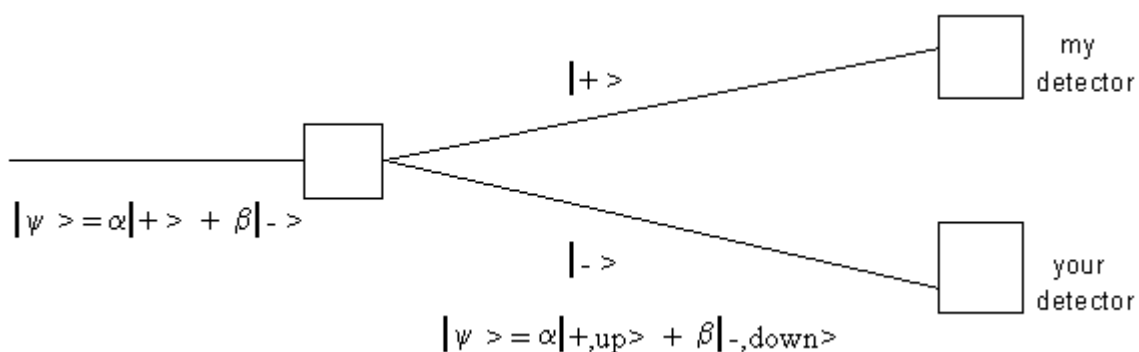
In the orthodox interpretation, wavefunction reduction defines the forward direction of time because the reduced state is irreversible. This is true for both microscopic and macroscopic systems. Recall from [Section 2.3](#) that, in classical physics, the second law of thermodynamics determined the forward direction of time because macroscopic natural processes are statistically irreversible. In classical physics, irreversibility is a property of a system whether or not it is observed, while in the orthodox interpretation, irreversibility is a result of observation itself.

6.5. Nonlocality in the orthodox interpretation

In this section, we shall assume the orthodox interpretation. Initially, we shall also assume that the wavefunction describes only the physical systems, and it is collapsed by some agent other than awareness.

Now we suppose that we have a Stern-Gerlach experiment with two detectors instead of one, as shown in the figure below. One detector is set up to record the $|+,up\rangle$ part of the wavefunction, and the other is set up to record the $|-,down\rangle$ part. The detectors may be arbitrarily far apart. At the instant of wavefunction collapse, what prevents both detectors from simultaneously recording the electron? This example shows that no local process can collapse the wavefunction because such processes cannot prevent simultaneous coincidences between the detectors. Hence, we must conclude that **wavefunction collapse cannot be produced by any known physical process (which are all local)**. (This result also can be inferred from the Bell-Aspect experiments, see [Section 4.3](#).) Since the wavefunction collapses over all parts of space simultaneously, it is an intrinsically nonlocal phenomenon. Thus, any interpretation of quantum theory requiring wavefunction collapse is not consistent with a local theory of reality, such as the philosophies of materialism or scientism (see [Section 1.2](#)).

Now suppose there are two observers, you and I, so that you observe the $|-,down\rangle$ state while I observe the $|+,up\rangle$ state. Then when I observe my detector to record "on", you must observe your detector to record "off". In order to insure that this is so, **if consciousness collapses the wavefunction, this consciousness must be nonlocal consciousness**.



This conclusion can be illustrated in a much simpler example than the experiment described above. We still assume that an object is represented by a wavefunction prior to an observation. Now suppose two observers make simultaneous observations of the same object whose color is unknown before the observation. In this case all possible colors must be represented in the wavefunction of the object before it is observed. Then why do both observers observe the same color rather than one observer observing, for example, a red object and the other observing a blue object? If consciousness collapses the wavefunction, the answer must be that the consciousness of both observers is the same consciousness. **Thus, the consciousness of all sentient observers is the same universal consciousness.**

Now let us consider the same example without reference to quantum theory. As before, let us assume that all objects are observer-created rather than existing in an objective sense, but now there are no wavefunctions before observation. It is easy to see that the consciousness of the observers must be universal consciousness if both observers are to see the same object. Thus, **whenever we assume that objects appear only as mental images, not as independently existing objects, the consciousness of the individual observers must be universal consciousness.** Of course, in this example, even the observers themselves must be mental images.

6.6. Hidden-variables models

One reason we abandoned classical particles was because we showed they could not go through two slits at once and produce interference, whereas waves could. But interference is possible with classical particles if there is also a wave present. A theory that includes both is the hidden variable theory developed by David Bohm (1917 - 1992) [brilliant, unconventional American-Brazilian physicist who left the U.S. never to return after being blacklisted in 1949 by Senator Joe McCarthy during the anticommunist hysteria, was arrested and charged with contempt of Congress after pleading the Fifth Amendment and refusing to recant his Marxism, was fired by Princeton University, was later acquitted by the court but lost his American citizenship]. This is the best developed and best known of the hidden variable models. This model is fully deterministic and assumes that the particles are classical and are subject to classical forces (which are all local). However, they are also subject to a quantum force that is derived from a wavefunction. (To be more accurate, there is a quantum potential that is derived from the wavefunction, and the quantum force is derived from the quantum potential. The wavefunction is now not a probability wave.) Since the particles are assumed to be classical, their positions and velocities are always definite, even before an observation. Contrary to the orthodox interpretation, the wavefunction in the hidden-variables interpretation

is not a complete description of the system because the particle positions are also required. In the initial state, the wavefunction specifies the actual distribution of particles in space, not just a probability. The time development of the wavefunction is then described by Schrödinger's equation, as in ordinary quantum theory.

Although the wavefunction now has a different interpretation, it is mathematically identical with that in orthodox quantum theory and contains all parts of the waves, e.g., reflected and transmitted parts, or the parts going through different slits, even if none of the particles follow those paths. (A peculiarity of the quantum force is that it can be very large even where the wavefunction is very small.) Since the wavefunction, and therefore the quantum force, depends on all parts of the experimental apparatus (e.g., in a two-slit experiment) so do the particle trajectories, even though trajectories and apparatus may be quite distant from each other. The result is that the quantum force from all parts of the apparatus acts instantaneously on all of the particles--hence, it is nonlocal.

How can we reconcile the determinism of this model with our experimental observations that particle positions and velocities cannot be predicted exactly? The answer is that, although in principle the particle trajectories are completely determined in this theory by the combination of classical and quantum forces, in practice they are strangely chaotic. Because, in practice, a particle's initial position can never be precisely known due to experimental (not quantum) uncertainties, this means that the location of the particle in the final state can be given only probabilistically. This result is identical to that of the orthodox interpretation, which also gives the final location only probabilistically. [Note: Even classically, some systems, such as the compound pendulum, can follow chaotic trajectories rather than smooth ones. If the trajectories are chaotic, the final position is a chaotic function of the initial position, so the final position cannot be predicted because the initial position can never be known accurately enough.] Because the exact trajectories and thus the quantum force are never known, this is called a hidden-variables theory.

Since classical particles exist in this hidden-variables interpretation, there is no wavefunction collapse, and therefore it is not necessary to introduce consciousness into the interpretation. Hence, it is consistent with scientific materialism (see [Section 1.2](#)).

There are problems with this theory. Besides being nonlocal, it is very difficult to make calculations with it and it is not known whether a relativistic theory can be made from it. The quantum force is unaffected by the particles, whereas the particles are directly affected by the quantum force. This kind of asymmetry is not easily accepted by physicists. The fact that the quantum force does not fall off with distance also disturbs many physicists.

Regardless of the problems with the theory, there are important philosophical implications that can be drawn from it. In those cases where calculations are possible, the results from it agree in every detail with those from orthodox quantum theory. This is not surprising because the theory was constructed to do so. Now we must ask the question, if two radically different theories both give results that agree with experiment, which is the correct theory? Because they both agree with experiment, this is intrinsically a metaphysical question. However, there are profound implications to choosing between them because the orthodox interpretation requires consciousness while the hidden-variables interpretation does not. Furthermore, hidden-variables is consistent with scientism while orthodox theory is not.

The physics community has effectively made a choice by almost completely ignoring the Bohm theory for reasons that have nothing to do with consciousness. They are that orthodox quantum theory can be made relativistic (resulting in quantum field theory) with results that are as accurate as experiment can determine. The orthodox theory is much simpler and lends itself to a wide variety of calculations. Its intrinsically probabilistic interpretation no longer bothers physicists (the Bohm theory ends up being probabilistic, anyway). By and large, most physicists regard the orthodox theory to be a mathematical description of reality while ignoring the problems in describing and understanding wavefunction collapse.

As mentioned above, consciousness was not a part of Bohm's original hidden-variables theory. However, he later extended it to his quantum theory of fields, and from this generalized it to include speculations about the nature of mind, matter, and consciousness. He called this a theory of the implicate order; we shall encounter it in [Section 8.1](#).

6.7. The many-worlds interpretation

This interpretation was invented by Hugh Everett (1930-1982) in 1957 so that cosmologists could apply quantum theory to the entire universe at the time of its origin. According to accepted cosmology, the universe exploded from a point at the time of the big bang, approximately 14 billion years ago. Early on, the universe was so tiny and its density was so high that its gravitational forces were enormously high. In such conditions, gravity cannot be treated classically; so it must be described quantum mechanically. Even though as yet we have no quantum theory of gravity, we do think that the initial universe must be described by a wavefunction. The universe by definition includes everything, so there can be no outside observers. However, without observers, there can be no wavefunction collapse, so quantum theory is assumed to be correct without any corrections or additions.

Let us now look at the Stern-Gerlach experiment in the light of the many-worlds interpretation. We return to the wavefunction that describes my observation of the detector:

$$|\psi\rangle = \alpha |+, \text{up, on, me}^+\rangle + \beta |-, \text{down, off, me}^-\rangle$$

There can be no reduction of the wavefunction now. Both terms must describe reality. The many-worlds interpretation says that at the moment of an observation, the world splits, or branches, and that both branches continue after the observation. There is a me in both branches. This interpretation maintains that in each branch, the me in that branch is aware of only the observation that it made. Since in my world, I am aware of only one result, I exist only in my branch. In the other branch, the other me is aware of the other result. The two branches do not communicate with each other, so the two mes are unaware of each other.

[Technical note: Assuming all of this to be true, what then is the interpretation of α and β ? The probabilistic interpretation of quantum theory says that $|\alpha|^2$ and $|\beta|^2$ are the statistical probabilities of each outcome. These probabilities can be measured only by making many measurements on identical systems. What can they mean here when we have only one system (the universe)? Bryce S. De Witt in 1970 proposed the following interpretation. In the first trial of such an experiment, both branches result from the observation. If I now make many measurements with my apparatus in my branch, I will measure probabilities that agree with $|\alpha|^2$ and $|\beta|^2$. At each measurement, there will be another branching, which will result in this me

being in my branch, and another me being in another branch. If each of these other mes continues the measurements, he will also measure probabilities which agree with $|\alpha|^2$ and $|\beta|^2$.]

It is easy to see that the number of branches rapidly proliferates as the observations continue. In addition, most observations on most types of systems will result in not only two branches, but also many more, as many as are allowed by Schrödinger's equation. In fact, the number of branches at each observation is usually infinite. Also, like orthodox theory, many-worlds theory is nonlocal because all parts of an entire branch (world) are materialized simultaneously.

While the many-worlds interpretation is very economical in terms of the number of concepts required in the theory, it is grossly extravagant in terms of the complexity of the world it describes. Furthermore, the existence of the other branches is intrinsically unverifiable--they are hypothesized merely to preserve the mathematics of quantum theory. It is these features that most physicists find hard to accept.

6.8. The similarity between the orthodox and many-worlds interpretations

In the many-worlds interpretation, after a branching, I am in only my branch, and I observe only my branch. As far as I am concerned, the other branches are not materialized. The advantage of many-worlds is that the unobserved branches can still be described by wavefunctions even though they are not observed. Thus, quantum theory does not require any mysterious reduction mechanism to get rid of the unobserved wavefunctions, even though some mysterious mechanism is required to materialize my branch. Cosmologists think this mysterious mechanism could be epiphenomenal consciousness that arose after the wavefunction evolved into enough complexity. If we stipulate that the unobserved branches remain unmaterialized, the many-worlds and orthodox interpretations are very similar, and for our purposes can be considered to be equivalent.

6.9. The astonishing implications of the nonlocality of consciousness

In [Section 6.5](#), we saw that all quantum systems are nonlocal, not just those of the Bell-Aspect experiments that were described in [Section 4.3](#). Because orthodox quantum theory cannot explain nonlocality, we see that it is either incorrect or incomplete, as was mentioned in [Section 6.1](#). Also, since both hidden-variables and many-worlds theory also are nonlocal, and neither can explain nonlocality, physics has no explanation whatsoever for it. (This is reminiscent of Gödel's theorem, which we discussed in [Section 5.6](#).) Thus, we must now begin to question our assumptions about the reality of space and time. We shall say more about this in [Section 7.1](#) and [Chapter 14](#).

As we have seen in [Sections 6.4](#) and [6.5](#), if it is consciousness that collapses the wavefunction (or that materializes a branch), then consciousness must be nonphysical. If it is nonlocal universal consciousness, we are faced with some other far-reaching conclusions. What two individual observers see is determined by universal consciousness, not by any kind of individual consciousness that might exist. This applies to all of our sensory perceptions without exception. Since everything we perceive is determined by universal consciousness, it makes no sense to say that there is a material world independent of consciousness. Thus the dualism of mind and matter is excluded.

It is only a small step now to suppose that, if all of our sensory perceptions are determined by universal consciousness, then so also are all of our thoughts and feelings because there is no intrinsic difference between them (as we shall see in Chapters [9](#) and [22](#)). If all experiences are determined by universal consciousness, then we must conclude that nothing in our lives that we consider to be "ours" as individuals is truly ours. If everything flows from universal consciousness, "our" lives are not our lives at all but are lives of universal consciousness. "My" consciousness cannot really be mine, nor can there be any free will if none of "my" thoughts is mine. **Even the thought that I exist is not mine.** With these astounding conclusions, we are forced to ask the questions, "Do I really exist?", and, "What am I, really?" We shall consider these questions later in the course.

6.10. The subjective interpretation of quantum theory

As we saw in [Section 4.1](#), interference suggests that physical waves are interfering, whether or not they are identified with the wavefunction. Identifying them with the wavefunction is tempting because they produce the same kind of interference pattern that the wavefunction would produce were it a physical object. Yet, this leads to the nonphysicality of nonlocality. Perhaps this dilemma is Nature's way of hinting to us that there is no such thing as objective, physical reality.

In [Section 6.1](#), we mentioned the possibility that the wavefunction is not a physical wave but is merely an algorithm for calculating the probabilities for certain specified events to occur. If this is so, there is no objectively real quantum wave either before or after an observation. Since the wavefunction reflects only our knowledge of a situation and nothing more, we can call this a subjective interpretation.

A few physicists hold this viewpoint because it avoids all of the problems of nonlocality. [Note to physicists: For a discussion of this, see the article by Christopher Fuchs and Asher Peres, "*Quantum Theory Needs No 'Interpretation'*", in *Physics Today*, March 2000, pp.70, and "*Letters*" in *Physics Today*, September 2000, pp. 11.] These physicists do not deny the possibility of the existence of an objective reality independent of what observers perceive, but they do not state what its significance would be.

Assuming there is no objective reality, our concepts of nature are limited by the kinds of experiments we do and by the type of theory that we use to interpret them. Our present picture of the microscopic world as consisting of atoms, molecules, and elementary particles is determined in an essential way by these limits. Radically different kinds of experiments and theories might produce a radically different kind of picture.

As we discussed in [Section 1.1](#), it is clear that the existence of an objective reality can never be proved nor disproved, and thus can only be a metaphysical assumption. **If it makes no difference whether or not something exists, it can have no effect on any observation.** Thus, the concept of an objective reality is unnecessary. However, even though an objective reality can itself have no effects, the concept of one certainly can. In fact, in [Chapter 9](#) we shall see that it is this concept that causes all of the suffering there is.

It is ironic to think that the careful, painstaking, empirical and theoretical study of objective,

physical reality, which is what we call physics, could lead to the conclusion that there is no such reality! It appears that the hypothesis of objective reality contains the seeds of its own destruction! Perhaps the domain of physics will some day shift from objectivity to subjectivity, and physicists will begin to welcome the sages as friends rather than viewing them with suspicion.

Part 2. The metaphysics of nonduality

Preface to Part 2.

Part 2 is much more speculative than Part 1. Parts of it are scientifically plausible and eventually testable by experiment, parts are scientifically tantalizing but can never be tested, parts are intuitively appealing and are verifiable within one's own experience, parts are acceptable only if the sage who teaches them is trusted, and parts cannot even approach understanding until enlightenment occurs. Taken all together, this material is a bridge between the science and philosophy of Part 1 on the one hand, and the teachings of Part 3 on the other. It is an attempt to conceptualize something that by its very nature cannot be conceptualized.

In this part we draw on the writings and teachings of two creative and intuitive physicists Amit Goswami and David Bohm; two of the very few contemporary spiritual teachers who delight in metaphysics, Ramesh Balsekar and Wei Wu Wei; a smattering of the popular spiritual teaching which manifested as *A Course in Miracles*; and some conventional psychology and Eastern Philosophy.

Chapter 7. An interpretation of quantum theory according to monistic idealism

7.1. The physics of monistic idealism

Until now, the physics that has been discussed is based mostly on the concept of an objective reality verified by experimental observations and, as long as the alternative interpretations of quantum theory that were presented are included, it would probably receive consensus agreement among most physicists. However, the present chapter is much more speculative. In it we present some of the results from Amit Goswami's 1993 book, *The Self-Aware Universe*, together with a critique of some of the difficulties in his quantum model of the brain. We shall see that Goswami assumes the validity of the concept of objective reality, but is forced into a questionable extension of this concept into a realm that is unmeasurable and unverifiable, the transcendental realm. We cite Goswami's theory as a good example of the quandary that results when an objective theory is postulated to explain a subjective phenomenon.

Goswami attempts to place his quantum theory of consciousness within the overall context of monistic idealism (see [Section 1.4](#)). In so doing, he postulates that consciousness has the following structure:

- a) Consciousness, the ground of all being, is primary.
- b) Consciousness contains the following three realms: the two immanent realms, which are the world of matter and the world of mental phenomena, and the transcendental realm. All of these

realms exist within and as consciousness, so there is nothing outside of consciousness.

c) The transcendental realm is the source of the immanent matter and mental realms. In this theory, the immanent realms are the phenomenal manifestation of the transcendental realm.

We must remind ourselves that, as before, we are dealing with a theory that is presumed to be a conceptual representation of reality. However, no theory, no matter how subtle or sophisticated, can describe reality. At best, it can only be a pointer to the actual knowledge of reality.

Traditional idealism holds that consciousness is the primary reality, and that all objects, whether material or mental, are objects within consciousness. However, it does not explain how the individual subject or experiencer in the subject-object experience arises. Even traditional monistic idealism, however, states that the consciousness of the individual subject is identical to the consciousness that is the ground of all being. The sense of separation that we feel is an illusion, as has always been claimed by the sages.

The sages proclaim that separation does not exist in reality. Ignorance of our true nature gives us the illusion of separateness, and this sense of separateness is the basis of all of our suffering. Monistic idealism tells us that the sense of separation is illusory, but Goswami's interpretation of quantum theory within monistic idealism goes further by purporting to explain how the illusion arises.

If the wavefunction is collapsed by consciousness, materialism cannot explain the interaction that causes the collapse. Dualism has the problems discussed in [Section 1.3](#), so we are left only with idealism. Now we must ask the question, is idealism, particularly monistic idealism, compatible with quantum physics? Goswami says that not only is it compatible, but it solves the problems of interpretation as well. Furthermore, he says it solves the paradox of immanence (i.e., transcendence in the manifestation) in mysticism.

From our discussion of nonlocality in [Section 4.3](#), we saw that nonlocality does not imply transfer of energy or mass at velocities exceeding the velocity of light. Therefore, it does not violate Einstein locality, which is one of the most solidly founded principles in physics. However, as we saw in [Section 6.9](#), if wavefunction collapse is the mechanism for manifestation, it must be simultaneous everywhere. Yet, how can it manifest everything simultaneously without transferring energy or mass? Goswami replies that, in monistic idealism, wavefunction collapse cannot occur in space-time because it itself is what manifests space-time. Therefore it cannot transfer energy or mass.

Goswami argues that the wavefunction exists not in space-time, but in a transcendental domain. The transcendental realm must not be thought of as including, or as being included in, the physical world of space-time. Transcendental in this context means absence of space-time. The transcendental realm cannot be located or perceived. It can be pointed to but only by pointing away from all that is perceived--not this, not that, not anything known, not anything knowable..

Recall that, in our adaptation of Plato's cave allegory (see [Section 1.4](#)), the material world consists of the shadows of Plato's transcendental archetypes. In Goswami's picture, the

wavefunctions are the equivalent of the transcendental archetypes. Consciousness manifests the immanent from the transcendental by collapsing the wavefunction. All of this occurs entirely within consciousness.

7.2. Schrödinger's cat revisited

We recall that the cat paradox ([Section 4.2](#)) was invented by Schrödinger to point out the strange consequences of coupling the microscopic with the macroscopic in such a way that both must be included in the wavefunction. Let us review this paradox.

A radioactive atom, a Geiger counter, a vial of poison gas, and a cat are in a box. The atom has a 50% chance of decaying in one hour. If it decays, the Geiger counter is triggered, causing the poison to be released and the cat to die. If it does not decay, the cat is still alive after one hour. At one hour, I look to see if the cat is alive or dead. We assume that everything in the box can be described by quantum theory, so before I look there is nothing but a wavefunction. The wavefunction contains a superposition of two terms, one describing a dead cat and one describing a live cat. Before I look, there is neither a dead nor a live cat. When I look, I do not see a superposition, I see either a dead or a live cat. The dead cat part of the wavefunction represents, with increasing probability, a cat that may have been dead for any time up to one hour. [Technical note: This discussion ignores the effects of the environment on the wavefunction of the cat before observation occurs. Examples of such effects are the result of air molecules bombarding the cat, and heat and light radiation being emitted and absorbed by the cat. Recent theoretical research indicates that such effects transform the wavefunction of the cat from a pure state into a mixed state, i.e., it then represents either a live cat or a dead cat, not a superposition of the two. However, until observation, it is still nothing but a wavefunction, and it is unknown whether this wavefunction represents a live cat or a dead cat. For our purposes, we may ignore such problems because our focus is on what occurs at the moment of observation.]

The idealist interpretation of Goswami states that, before observation, the cat is in a superposition of live and dead states, and this superposition is collapsed by our observation. This is similar to the orthodox interpretation, except that in the idealist case, the superposition of states is in the transcendental realm, while in the orthodox case, the superposition is in physical space-time. Any conscious observer including the cat itself, or even a cockroach in the box, may collapse the wavefunction. Different observations, whether by the same or by different observers, will in general have different results, but only within the limits allowed by quantum theory and the probabilities given by it. The wavefunction before observation, and the materialized object at the time of observation, both constitute the objective reality. However, obviously this objective reality is not independent of observation. As in [Section 4.3](#), we shall

use the term weak objectivity to refer to a reality that depends on the observer, as opposed to strong objectivity, which refers to a reality that is independent of the observer.

Suppose two observers simultaneously look in a box in which the wavefunction still has not collapsed. Which observer collapses the wavefunction? It is the same paradox as that of two detectors and two observers in the Stern-Gerlach experiment described in [Section 6.5](#). The only resolution is that the consciousness that collapses the wavefunction must be unitary and nonlocal (universal). This means that what appears to be individual consciousness is in reality

universal consciousness. In other words, the consciousness that I think is mine is identical to the consciousness that you think is yours. This does not mean that the contents of your mind are the same as the contents of my mind. These are individual, and depend on our individual sensory mechanisms, brain structures, and conditioning.

In quantum theory, observation is not a continuous process, but is a rapid sequence of discrete snapshot-like observations. "Between" successive observations, there is only the wavefunction, in most cases a very complex one. This wavefunction includes not only the external world, but also our own bodies. Change occurs only "between" observations, but remember that according to Goswami, the wavefunction "between" observations exists in the transcendental realm outside of time, so change actually occurs discontinuously in time. Only the wavefunction can change and it changes in accordance with quantum theory. (For example, human vision cannot discern more than about 20 different images/sec, which corresponds to about 50 msec per image. In classical Indian philosophy, the duration of one discrete observation is called a *kshana*, which is stated to be 1/4500 min, or 13.3 msec.)

At the present time, there is no evidence that quantum theory cannot in principle describe any physical object, including cats and our own bodies. This is an enormous extrapolation from the most complex, but still relatively simple, objects that have been experimentally shown to obey quantum theory. Nevertheless, we shall continue to make the assumption that everything in the physical world is quantum mechanical. This has been experimentally demonstrated in some macroscopic systems (see [Section 4.2](#)) as well as in many microscopic systems. As we have already shown, nothing quantum mechanical can collapse the wavefunction. Collapse must be a result of something outside physics, i.e., outside space-time.

If nonlocal, unitary consciousness collapses the wavefunction, how can change occur at all? Why does it not cause continuous collapse and prevent change from occurring? Goswami answers that collapse also requires immanent awareness, that is, a sensory apparatus coupled to a brain structure must also be present. Consciousness without immanent awareness cannot cause collapse. The limitations of the physical structure of the brain allow only separate, discrete observations to be made.

How did the brain appear if the brain is required in order for it to appear? The explanation is that only a brain wavefunction is required. Nonlocal consciousness collapses the entire wavefunction "as soon" as the wavefunction for a brain evolves in the transcendental realm. The brain, the body, and their surroundings are simultaneously materialized.

7.3. The external world in idealism

We now face the problem of understanding why the "external" world seems so real to us. We may ask, if it is not real, why is science so successful at describing it? All three of the objective interpretations of quantum theory that we have discussed posit a real external world. We shall disregard nonlocal hidden-variables theory because it does not explain or require consciousness. The other two are the many-worlds and the orthodox. These are similar to each other because conscious observation is required in both, in many-worlds to define a branching, in the orthodox interpretation to collapse the wavefunction. Their similarity is even greater if we suppose that in many-worlds, consciousness selects and manifests a branch in the material world while the other branches remain as wavefunctions and are never

materialized. There is, however, a major difference between these two interpretations and the one based on monistic idealism as used by Goswami. Both the many-worlds and the orthodox interpretations hypothesize that wavefunctions exist in ordinary space-time before consciousness defines a branching or collapses the wavefunction, while Goswami hypothesizes that wavefunctions exist in a transcendental realm prior to collapse. The difference is significant because the objective interpretations avoid the problems of describing a wavefunction in a transcendental realm, while Goswami's interpretation avoids the problem of a wavefunction collapse that violates Einstein locality. We shall discuss these differences in more detail in [Section 7.8](#).

Using Goswami's interpretation, we now must ask the question, "In what form did the universe exist for billions of years "before" conscious observers started collapsing wavefunctions?" This is a loaded question because it assumes that the universe did indeed exist before the appearance of conscious observers. If the universe is a wavefunction in the transcendental domain "until" the first conscious observation, and the transcendental domain is outside of space-time, then time itself does not exist until observations begin. Space-time, the observed universe, and the brain-sensory system are all manifested simultaneously. This does not occur "until" the wavefunction for a sufficiently complex brain-sensory system is present so that an aware, sentient being can be manifested simultaneously with the observation. Actually, this process is occurring constantly: Space-time, observing objects and observed objects are constantly and simultaneously being materialized by collapse of the wavefunction.

Nonlocal consciousness collapses the wavefunction. Space-time, perceived objects, and perceiving objects simultaneously appear. The external, perceived objects, many of which are also perceiving objects, form the external, objective, empirical reality. These objects are macroscopic and classical; therefore they have essentially no uncertainties in position and velocity. They appear to be stable because, while their wavefunctions change "between" observations, in perceived time this happens slowly. Changes may include the spreading of a tightly bunched wavefunction, representing a sharply localized object, to a more spread out wavefunction, representing more uncertainty in position. Perceiving objects derive their self-consciousness and immanent awareness from the nonlocal, universal consciousness that materializes them. We will see later how this happens.

7.4. The quantum mind

None of the traditional idealist philosophies explains how the personal "I" experience arises. This is such a persistent and compelling experience that it must be explained.

Goswami proposes a model of the brain-mind that has a quantum part and a classical part that are coupled together. In justifying the quantum part of the brain-mind, Goswami notes that the mind has several properties that are quantum-like:

a) Uncertainty and complementarity. A thought has feature, which is instantaneous content, analogous to the position of a particle. It also has association, which is movement, analogous to the velocity (or momentum) of a particle. A thought occurs in the field of awareness, which is analogous to space. Feature and association are complementary. If we concentrate on one and clearly identify it (small uncertainty), we lose sight of the other (large uncertainty).

b) Discontinuity, or jumps. For example, in creative thinking, new concepts appear discontinuously.

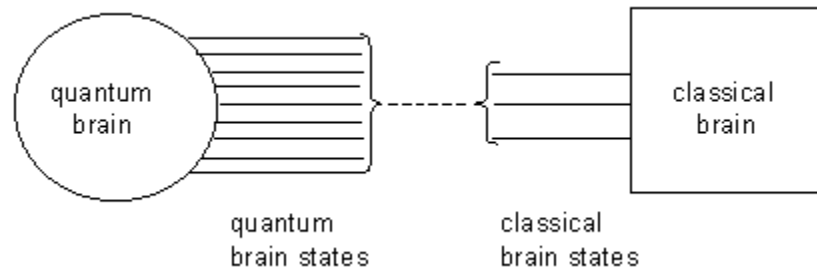
c) Nonlocality. Distant viewing experiments (see [Section 5.2](#)) may be explained in terms of persistent correlations between two widely separated minds that were initially in close proximity and had become correlated by the intention and preparation of the experiments. Nonlocality would not require information transfer and therefore would be similar to the nonlocal correlations in the Aspect experiments (see [Section 4.3](#)). The same thing may be true in some out-of-body experiences, such as when an anesthetized patient "sees" surgery being performed on his/her body as though from a vantage point above the operating room. Such correlations might be explained in terms of nonlocal minds.

d) Superposition. Important psychological experiments by Tony Marcel (see <http://www.mrc-cbu.cam.ac.uk/Common/Research/cognition-emotion/researchtopics/TonyPage.shtml>), too complicated to be discussed here, can be interpreted in terms of a model of the subject's brain which contains a quantum part that exists in a superposition of possibilities until the subject recognizes the object.

In Goswami's model, the brain, consisting of quantum and classical parts, exists as a wavefunction in the transcendental domain (not in space-time) "until" wavefunction collapse materializes it. [Think of the Stern-Gerlach experiment or the Schrödinger cat paradox. "Prior" to collapse, the quantum states of the quantum part (the spin or the radioactive nucleus) are coupled to the classically separate states of the classical part ("on" or "off" of the spin detector, or dead or alive of the particle detector-cat combination) to form a quantum superposition in the transcendental domain.] Nonlocal consciousness collapses the wavefunction of the entire system into one of the states allowed by the classical part. The mind consists of the experiences of these collapsed physical states of the brain, not the states themselves.

The presence of the quantum part of the brain provides a large, possibly infinite, number of possibilities available to be materialized. (In our simple analogies, the only available possibilities were the spin-up and spin-down states in the Stern-Gerlach experiment, and the decay and no-decay states of the radioactive nucleus in the Schrödinger cat example.)

Just as in our analogies, the presence of the classical part is necessary for collapse to occur, and to provide the experienced final states. In our analogies, these final states were the observed states of detector-on or detector-off, and live-cat or dead-cat. Only the states of the classical part can be experienced by consciousness, exactly as in these analogies. These classical states must be distinct and nonoverlapping to correspond to our experience of only one distinct event at a time. They must also be memory states, which are states that are irreversible in time (resulting in the experience of time moving forward), and with wavefunctions which change only slowly, so that persistent records of the collapsed events are made, leading to a sense of continuity in our experiences.



Unitary, nonlocal consciousness chooses the state to be experienced, but because the classical brain is localized and isolated, the experience of the final brain states is local and individual. Although we are aware of the experience of an event, we are unaware of the choosing process that collapses the wavefunction that results in the event, i.e., the choice is made unconsciously. This is clearly so when we are passively observing passing events so that the time sequence appears to proceed on its own without our intervention. However, it is even true when we think we are making decisions (see [Section 5.9](#)).

7.5. Paradoxes and tangled hierarchies

Normally, we identify only with the experiences associated with a particular brain-body. In order to explain how universal consciousness might identify with a such a physical object (the combined sensory mechanism-brain structure), Goswami utilizes the concept of a tangled hierarchy which he borrowed from the 1980 book by Douglas Hofstadter, *Gödel, Escher, and Bach: An Eternal Golden Braid*. He gave the following analogy in order to illustrate this concept.

For this, we introduce the concept of logical types. An example of logical types is the following:

1. People who make statements
2. Statements

An item that defines the context for another item is of a higher logical type than that of the other item. In the example above, the first item identifies objects (people) that define the context for the second item (statements that people make). Thus, people are of a higher logical type than statements.

Next we define a self-referential system. An example is the following:

1. The following statement is true.
2. The preceding statement is true.

Both of these items are of the same logical type since they are both statements. However, they refer to each other, making the system self-referential. In addition, the statements reinforce each other, strengthening the validity of each.

Now consider a paradoxical system of items of the same logical type:

1. The following statement is true.
2. The preceding statement is false.

If the first statement is true, the second statement makes it false, etc., thus leading to an infinite series of opposite conclusions. This is a paradox. All logical paradoxes arise from self-referential systems, i.e., systems that refer to themselves rather than to something outside of themselves.

We can reformulate both the reinforcing and paradoxical systems as single statements:

3. This statement is true (reinforcing).
4. This statement is false (paradoxical infinite series).

Now consider the following self-referential system:

5. I am a liar.

Let us consider three alternative interpretations of this statement.

a) If the "I" is the statement itself, then this does not mix logical types and is equivalent to the paradoxical infinite series of statement number 4 above.

b) However, if I am the person that is making the statement, I am of a higher logical type than (I am the context of) the statement I am making. Now there need be no paradox because the statement does not refer to itself or to another statement of the same logical type, but to I, which is of a higher logical type. If the statement does not affect its context, there is no mixing of the level of the statement with the level of its context. We do not yet have a tangled hierarchy because the clear delineation between the two levels is maintained.

One can say that the infinite series of interpretation a) may be discontinuously terminated by a shift in the meaning of "I" in order to obtain interpretation b). In this way, the paradox is eliminated.

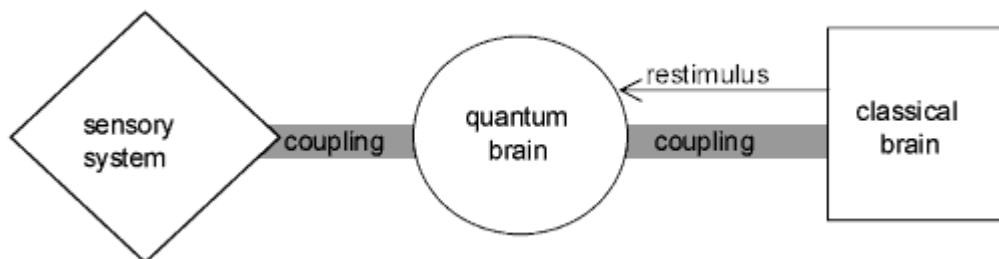
c) Now suppose I start to think about the statement, and I begin to take it seriously, perhaps even believing it. The statement is affecting its context, and it changes it. Assuming that I was not a liar initially I could actually become a liar, which would be a radical change in the context. If I become a thoroughgoing, inveterate liar and cannot make a truthful statement, a paradox develops. If I cannot tell the truth, and I state that I am a liar, then I am not lying, etc. The two levels have become inextricably entangled in a paradoxical, tangled hierarchy.

In the brain-mind system, the brain consisting of quantum and classical parts is stimulated by an input from the physical sensory system, leading to a superposition of all the possibilities of the coupled quantum-classical brain. This quantum state continues until the wavefunction is collapsed by nonlocal consciousness. In the next two sections, we shall see how the level of the physical brain and the level of nonlocal consciousness might be mixed together to form a self-referential, paradoxical, tangled hierarchy, resulting in the experience of individual self-consciousness. This is analogous to interpretation c) of statement 5 above.

7.6. The “I” of consciousness

At the first collapse of the brain-mind wavefunction of the embryo or fetus, the body-mind appears, but without an observer/observed duality. Goswami explains this collapse as self-referential collapse because the brain wavefunction acts in concert with nonlocal consciousness to collapse its own wavefunction. The result is not only manifestation but also entanglement of the level of nonlocal consciousness with the level of the physical system, a tangled hierarchy. This results in identification of nonlocal consciousness with the physical mechanism. This identification is necessary for sentience to appear and for the life processes of the physical mechanism to occur. It also produces the experience of awareness--nonlocal consciousness thereby becomes aware. Goswami calls this the quantum self, even though both classical and quantum brains are necessary to produce collapse. We may also call this state the unconditioned self.

The classical brain records in its memory every experience (every collapse) in response to a sensory stimulus. If the same or similar stimulus is again presented to the brain-mind, the memory of the previous stimulus is triggered, and this memory acts as a restimulus to the quantum brain. The combined quantum-classical wavefunction is again collapsed and the new memory reinforces the old one. Repeated similar stimuli inevitably lead ultimately to an almost totally conditioned response, one in which the probability of a new, creative response approaches zero. The brain then behaves almost like a classical deterministic system. This is depicted in the following diagram:



The repeated restimulation of the quantum system by the classical system results in a chain of secondary collapses. These secondary collapses correspond to evoked memories, habitual reactions, introspective experiences, and conditioned motor responses. However, we can see evidence for the functioning of the quantum brain even in introspection and memory because of the quantum characteristics of the mind that we discussed in [Section 7.4](#) above.

The secondary processes and repeated running of the learned programs of the classical brain conceal from us the essential role of nonlocal consciousness in collapsing the wavefunction and creating an experience. The result is the persistent thought of an entity (the I-concept) that resides in the mind. Now, a second tangled hierarchy can occur, this time between nonlocal consciousness and the I-concept, resulting in identification of nonlocal consciousness with the I-concept. When this occurs, the illusion of what we call the ego, or I-entity, is formed. **The ego, or false self, is an assumed separate entity that is associated with the classical, conditioned, deterministic brain, while the quantum self is an experience that is dominated by the full range of possibilities of the quantum brain.** To recapitulate, two

distinct levels of identification (tangled hierarchy) occur, the first resulting in pure awareness, the second resulting in the false self, ego, or fictitious I-entity.

The ego does not exist. It is nothing but a presumption—the presumption that, if thinking, experiencing, or doing occur, there must be an entity that thinks, experiences, or does. It is the identification of nonlocal consciousness with a thought in the mind. As a result of this identification, the experience of freedom that is really a property of the quantum self becomes limited and is falsely attributed to the ego, resulting in the assumption that the I-entity has free will instead of being a completely conditioned product of repeated experiences. If we believe that we are egos, we will believe that our consciousnesses are separate from other consciousnesses and that we are free to choose. However, at the same time, we will contradictorily perceive ourselves as being inside and subject to space-time and as the victim of our surroundings. The reality is that our true identity is the nonlocal, unitary, unlimited consciousness which transcends space-time, and the experience of our true identity is the infinitely free, unconditioned quantum self.

7.7. Further discussion of the unconditioned self, the ego, and freedom

In this discussion, we must make a clear distinction between the two types of experience that are related to the two types of processes occurring in the brain. The first process to occur in response to a sensory stimulus is the establishment of a response wavefunction in the combined quantum-classical brain. This is a superposition of all possibilities of which the brain is capable in response to the stimulus. Nonlocal consciousness collapses the wavefunction. Remember that in this first tangled hierarchy, the contextual level of nonlocal consciousness acts upon the level of the physical brain, which reacts back on the contextual level, which reacts back on ... etc., and the two levels become inextricably mixed. This tangled hierarchy gives rise to awareness and perception, but still without the concept of an entity which perceives or observes. Goswami variously calls this primary awareness, pure awareness, the quantum self, the unconditioned self, or the atman. It is important to realize that the unconditioned self is not an entity, thing or object. Pure experience needs no entity. In this state there is no experiencer and nothing experienced. There is only experiencing itself.

The other type of experience is related to the secondary processes in the brain. These are the processes in which the classical brain restimulates the quantum brain, and the combined quantum-classical wavefunction again collapses into the same or similar classical brain state, which restimulates the quantum brain, etc. After sufficient conditioning of the classical brain, the quantum-classical brain tends to respond in a deterministic pattern of habitual states. Included in these states is the concept of a separate entity. In the second tangled hierarchy, nonlocal consciousness identifies with this concept, and the assumed I-entity or ego arises. When we are in this identified condition, we are normally unaware both of the tangled hierarchies and of the quantum self.

Identification that leads to the illusory I-entity arises during early childhood when the child has been conditioned to think of itself as a separate person. This occurs after the child has been called repeatedly by its name, has been referred to as “you” (implying that there is another), has been instructed, “Do this!”, “Don’t do that!”, and generally has been treated as being an independent person separate from its mother. However, one should not think that this conditioning process is something that can be avoided, since it is a necessary part of child

development (see [Section 5.8](#)).

The ego is presumed to be the thinker, chooser, and doer. However, it is absurd to think that a mere concept could actually be an agent with the power to think, choose, or do. The ego is nothing but a figment of the imagination, does not exist as an entity, and has no power whatsoever. In reality there is never a thinker, chooser, or doer. There is nothing but identification of nonlocal consciousness (which is not an entity) with the conditioned quantum-classical brain.

There is only one consciousness. Our consciousness is nonlocal consciousness. My consciousness is identical to your consciousness. Only the contents are different. The entities that we falsely think we are result from identification of this consciousness with a concept in the conditioned mind.

Identification with the hard conditioning and rigid isolation of the fictitious ego is relaxed in so-called transpersonal, or peak, experiences, which lead to a creative expansion of the self-image. These experiences approach, but are not identical to, those of the quantum self, since identification with a self-image is still present, although the self-image becomes expanded.

The quantum self is experienced as awareness, presence, and subjectivity, in which there is no entity at all, and which arises when the unconditioned quantum wavefunction is first collapsed (or later in life after disidentification from the self-image has occurred). Awareness is what we really are, and is equivalent to the atman of Indian philosophy, or the no-self of Buddhism. The goal of all spiritual practice is to disidentify from the fictitious I-entity and so to realize our true nature.

We are now in a position to complete our discussion of freedom. Goswami uses the term “choice” to mean the nonvolitional action of nonlocal consciousness in selecting a particular possibility out of the range of possibilities defined by the wavefunction. (Choice is nonvolitional because there is no entity to exert volitional choice.) Without identification, choice is free. With identification, choice becomes limited. However, even as egos, we are aware and we know that we are aware. Therefore identification of awareness with the I-concept is never actually complete, and this allows the possibility of disidentification from the false self.

We found in Sections [5.9](#), [5.10](#), and [5.12](#) that freedom of choice does not exist in a separate entity. Therefore, even if the ego were real it would still not have the freedom to choose. However, because the ego is nothing but a fictional self-image, it does not even exist as an entity. Therefore its freedom is doubly fictitious. All choice is the nonvolitional choice of nonlocal consciousness, and complete freedom is the experience of unconditioned, disidentified awareness, the quantum self.

We come now to the paradox of the paradoxical tangled hierarchy ([Section 7.5](#)). The ego is the belief that it is free to choose, but it is not. The quantum self is freedom itself, but it is not a separate entity that can choose. Remember from [Section 5.11](#) that the belief in free will depends on a perceived separation or dualism between a controller and a controlled. Within the quantum self there is no separation or isolation—there is no entity—so there is no dualism. Hence, there is no concept of free will in the state of pure, or primary, awareness.

The experience of true freedom comes from the quantum self, whereas what we think of as free will comes from the noncreative, conditioned, imaginary ego. Whenever we experience infinite freedom, it is a result of a momentary disidentification from the conditioned ego, permitting the experience of the freedom of the unidentified quantum self to be revealed. This is true freedom, without the restrictions of being a limited individual, and without the burdens and responsibilities of having to make choices. During these moments, there is no individual "I". When reidentification occurs, the conditioned "I" reappears and then claims to have been free!

The paradox of the paradoxical tangled hierarchy reveals itself in our experience of freedom even when we are bound by our belief that we have free will. The thought of free will, which is a thought of bondage, cannot conceal our true nature, which is pure freedom. However, the mind attributes the experience of freedom to free will instead of to pure consciousness even though nothing in the mind is free.

How can we apply this knowledge to our personal lives? We have seen that our consciousness really is nonlocal universal consciousness, and the goal of all spiritual practice is to know the freedom of unconditioned awareness. This can happen only when disidentification from the fictitious ego-entity has occurred.

To those for whom biblical passages are meaningful, disidentification from the ego is urged in Matthew 18:1-3:

- 1: At that time the disciples came to Jesus, saying, "Who is the greatest in the kingdom of heaven?"*
- 2: And calling to him a child, he put him in the midst of them,*
- 3: and said, "Truly, I say to you, unless you turn and become like children, you will never enter the kingdom of heaven."*

To disidentify from the ego is to become like a child--this is what is meant by entering the "kingdom of heaven". However, "you" as ego cannot disidentify from the ego because the ego can do nothing. Disidentification can only happen spontaneously. But understanding the ego and the the feeling of bondage it entails are helpful in disidentification. The practices of Part 3 show this. However, "you" cannot do them. If they are supposed to happen, they will. If not, they won't (see also [Section 5.14](#)).

7.8. The meanings and difficulties of conceptual models

Goswami's hypothesis of a quantum brain is only a hypothesis, and it is presently not known whether a quantum brain exists. This is not a fundamental problem because it is a hypothesis that eventually can be put to experimental test, and perhaps some day we shall know whether or not some kind of quantum brain can be verified.

However, there is a fatal flaw in his model. The transcendental realm is hypothesized to contain the wavefunction, yet the wavefunction as normally conceived is a function of time and space, which are absent in the transcendental realm and in fact do not appear "until" wavefunction collapse. A more general way of stating the same flaw is that concepts in quantum theory are usually conceived within the context of time and space, so it is in principle

impossible to use such quantum concepts in a realm in which space-time is absent. This will be discussed further in [Section 8.4](#).

One might think that the many-worlds interpretation of quantum theory, which postulates the presence of ordinary space-time since the beginning of the universe (the big bang), would avoid the difficulty of trying to postulate a wavefunction in a transcendental realm since all wavefunctions would then exist in ordinary space-time. However, this raises the old metaphysical question of whether an objective reality, such as existed before the first conscious observers, can exist if it is not observable even in principle. As we have seen in [Section 1.1](#), such an objective reality can never be proved to exist and can only be an assumption. Furthermore, as we observed in [Section 6.10](#), no objective reality is ever necessary to produce any observable effect, and therefore the concept of one is superfluous.

Goswami's model is useful in emphasizing the importance of seeing that we are limited by identification. In fact, knowing the exact mechanism for identification is not necessary for the validity or understanding of Parts 2 and 3 of this course. What is necessary is to see that identification is an ongoing process that is never complete, so it is always escapable, and therefore we are not forever doomed to suffer. Disidentification is possible at any time for any person.

Chapter 8. Transcendental realms

8.1. Bohm's holomovement

So far, we have encountered two transcendental realms, that of Plato's cave allegory (see [Section 1.4](#)), and that of Goswami's quantum theory within monistic idealism (see [Chapter 7](#)). A third such realm was proposed and described by David Bohm (see, e.g., David Bohm, *Wholeness and the Implicate Order*, 1980, and David Bohm and F. David Peat, *Science, Order, and Creativity*, 1987) as an extension of his quantum theory for particles (see [Section 6.6](#)).

David Bohm was a theoretical physicist with wide ranging interests, and an unusually deep, intuitive understanding of physical concepts. He was never satisfied with the conventional interpretations of quantum theory, and strove to develop a theory that incorporated classical, rather than observer-created, particles into it. This foray into unconventional physics led to his quantum theory of particles, the hidden-variables theory that we discussed in [Section 6.6](#). In this effort, he met the approval of Einstein. However, his theory turned out to be extremely nonlocal, which Einstein could not accept. Later, Bohm generalized his quantum particle theory to a quantum theory of fields, and was led to an even more radical theory of the material world.

[Note for scientifically inclined readers: In classical physics, a field is a quantity, defined over all space, which is the source of a force. This force acts on classical particles. For example, the electromagnetic field is the source of the electromagnetic force which acts on electrically charged particles like the electron. Likewise the gravitational field is the source of the gravitational force which acts on all particles having mass. (In classical physics, this includes all particles.) On the other hand, in quantum field theory, there is a quantum field that is the source of every particle. Some particles are the agents of forces; they are called field quanta. For example, the quantized electromagnetic field is the source of the photon, which is the

agent of the electromagnetic force. The gluon field is the source of the gluon, which is the agent of the nuclear force, the force that holds the nucleus together. The quantized gravitational field (for which at the present time there is no established theory but for which there is little doubt about its inevitable appearance) is the source of the graviton, which is the agent of the gravitational force.]

[Note continued: In Bohm's quantum particle theory ([Section 6.6](#)), the quantum potential and the quantum force derived from it are unobservable, but their function is to organize the motion of the particles so that this motion has a wavelike as well as a particlelike behavior. In his quantum field theory, the quantum fields are not the sources of particles as in conventional quantum field theory. Rather, it is the movement of the fields that appears as both particlelike and wavelike phenomena. To organize the movement of these fields, he proposed a potential analogous to his quantum potential, which he called the superquantum potential, and which, like the quantum potential, is also unobservable.]

Bohm described all phenomena in terms of order. A simple example of order is the description of a straight line as an ordered array of short line segments of equal length laid end to end, with all of the successive segments having the same orientation and difference in position. A square is an ordered array of four straight lines of equal length laid end to end, with each successive one oriented at 90 degrees with respect to the preceding one. A circle can be thought of as an ordered array of infinitesimal line segments laid end to end, with the same infinitesimal difference in angular orientation. More complicated lines and geometric figures can be described as ordered arrays with more complicated differences in position and orientation.

Order can be seen not only in geometric patterns, but also in all manifest phenomena. The kinds of order described in the previous paragraph are orders in space. There are also orders in time. The ticking of a clock, a single frequency tone, the rhythmic beating of a heart, or a periodically flashing strobe light, are simple examples of orders in time. Examples of more complicated orders are sounds with changing frequencies and/or a mixture of frequencies, such as any musical sound, the changing mixture of light frequencies in almost any visual object, or the rhythmic bodily sensations in walking, running, and dancing. Even more complicated examples are those in which rhythm and frequency are not so apparent, such as in thinking, eating, working, and playing. In short, all perceived phenomena are examples of some sort of order.

The above are all examples of what Bohm called the explicate order, i.e., the order that is explicit in everything that is perceived. A much larger realm of order is what Bohm called the implicate order, i.e. a realm of order which is implicit and therefore cannot be directly observed. Bohm was initially led to the concept of this realm from his hidden-variables theory of particles. [Remember that his quantum potential and quantum force are always implicit in all observed phenomena, and can never be measured or observed. The explicit observables are the particle properties like position and velocity. In the extension of his theory to quantum field theory, the superquantum potential, which can never be observed, comprises the implicate order, whereas the particlelike and wavelike phenomena, which are the organized movements of the fields, are the explicate order.]

An explicate order is a projection into the manifest world of a corresponding implicate order. The implicate order is enfolded upon itself in such a way that any part of it contains elements of the whole, whereas the explicate order is unfolded from the implicate order and consists of separate, identifiable objects. Bohm used the analogy of the hologram in which a laser beam is split into two parts, the first part interfering with the second part after the latter has been reflected from an object. The result is an interference pattern such that any part of the pattern contains light reflected from the entire object. When a photographic image of the interference pattern (called a hologram, which is the analog of the implicate order) is illuminated with a laser beam, a three-dimensional image of the original object (the analog of the explicate order) is unfolded and formed. Thus, the implicate order is a representation of the explicate order, such that information about separation, distinction, and identity is retained but is enfolded. If only a part of the hologram is illuminated by a laser beam, the entire explicate order (the three-dimensional image) will be unfolded (formed in the laser beam), but some accuracy and detail will be missing because information from the rest of the hologram is not being used.

From these considerations, Bohm was led to the idea of the holomovement, which carries the implicate order and which, because of enfoldment, is an unbroken and undivided totality. All possible different types of implicate order are enfolded within themselves and within each other, so that they are all intermingled and intermixed. Thus, any part of the holomovement contains all of the implicate orders and is representative of the entire holomovement. Bohm used the term holomovement rather than hologram to emphasize that it is constantly changing and in motion, and cannot be pictured as static in the way a hologram is. The holomovement is the source of the explicate order, which is projected out and made manifest. Consequently, Bohm considered the holomovement to be primary and fundamental, while the manifestation is secondary. The holomovement has no limits of any sort and is not required to conform to any particular order. Thus, it is undefinable and unlimited.

Bohm thought that all aspects of the manifestation are projections from the holomovement, including all physical, mental, emotional, and sensory manifestations. Thus, all contents of awareness arise from the holomovement, including the body-mind itself. He regarded the mental and the physical as being inextricably connected to each other, like the north and south pole of a magnet. Thus, every physical object has a mental aspect, and every mental object has a physical aspect. Consequently, the manifestation is dualistic. However, the holomovement, from which mind and matter are projected, is characterized by wholeness, without any distinction between them. Thus, the holomovement is monistic.

The explicate order is the order that we directly perceive. Bohm thought there is an infinite hierarchy of implicate orders above this explicate order. Each implicate order can be considered to be the explicate order for the implicate order directly above it in the hierarchy. The implicate order directly above the explicate order of the observed universe contains the physical laws which govern the motion of the universe. They are implicit in the explicate order, i.e., they are not directly observed but must be inferred from measurement and observation. Physical law governs the space-time ordered sequence of events that are projected into the manifestation so that the present follows from the past, a manifestation of the law of causality.

The manifestation contains only the space-time events that are observed at this moment. However, since the holomovement is characterized by wholeness, it contains the events in all space-time in implicate form. i.e., it contains all events in all time as well as in all space. As the

sage Ramesh Balsekar says, “It is all there!” This feature is a possible explanation for nonlocality of the mind (see [Section 5.2](#)). Nonlocality in time means that some nonlocal minds are sensitive to projections from the holomovement that include some aspects of past and/or future. This would explain those talented individuals that can read the “akashic records” and thus see past lives, or those that are precognitive and can see some aspects of the future. Nonlocality in space means that some nonlocal minds are sensitive to projections of images of locations far outside the direct perception of that individual. The inevitable inaccuracy and unreliability of such nonlocal projections can be explained by realizing that only part of the implicate order is projected. Thus, some information is missing, just as in the case when a laser beam illuminates only part of a hologram.

8.2. Similarities between the different transcendental realms

We can now see the similarities between the holomovement of Bohm and the transcendental realms of Plato and Goswami. All of them transcend space-time, but all are the source of space-time and of the entire manifestation. They are all characterized by wholeness because they cannot be divided or separated into parts. Because they are whole, all time and space events exist in them in implicit form. Each moment of the manifestation is formed and subsequently dissolves. These processes of manifestation and dissolution go on continuously from moment to moment. In each moment the manifestation arises anew and falls, to be replaced by the next moment.

None of the transcendental realms can be described or defined using space-time concepts because they are all transcendental to space-time (which is part of the explicate order). All three transcendental realms are unperceivable to us, but all contain the blueprints for the perceived manifestation, e.g., the archetypes of Plato, the wavefunctions of Goswami, and the implicate order of Bohm. The material world is projected from the archetypal realm of Plato in our adaptation of the cave allegory. It is also projected from the implicate order of Bohm, and appears by wavefunction collapse from Goswami’s transcendental realm.

8.3. The pool of consciousness according to Ramesh Balsekar

The sage, Ramesh Balsekar, whose teaching will receive much emphasis in this course, has a concept of the source and sink for the manifestation that is similar to the transcendental realms discussed above. He calls it the “pool of consciousness” and it implicitly contains all of the forms from which consciousness “selects” the components for an object of manifestation such as a body-mind organism. At the death of the organism, the mental conditioning that was present in the organism, such as thoughts, fears, desires, aversions, and ambitions, return to the pool where they become ingredients to be used by consciousness in creating new forms.

As we stated above, because the basic feature of the transcendental realms is their wholeness and transcendence, the entire space-time realm is represented in them. Ramesh frequently refers to the destiny of every individual and of the world as being completely determined (we shall say more about this in [Section 14.5](#)). This is consistent with an abstract form of the entire space-time realm existing in the pool of consciousness, just as it does in the other transcendental realms.

8.4. The meaning of the transcendental realms

If the transcendental realms were to actually exist, what would they mean? One meaning is that the existence of destiny would be implied, as mentioned above. This would mean that the entire past and future of every individual would exist in implicate form. (In fact, as we shall see in [Chapter 14](#), past and future are nothing but concepts--**now** is all there is.)

The transcendental realms are imagined to be the realms of all possibilities. Only an infinitesimal fraction of the total number of possibilities is ever projected into manifestation. What appears is only what we perceive, and our perceptions are limited by our genetics and conditioning, which are also part of our destiny. Because what we see has its origin in the transcendental realm, its reality is much more abstract than we think. Nonlocal minds can be more sensitive to this reality than earth-bound minds because they are less conditioned to the material and tangible.

Since time and space do not exist in the transcendental realms, such realms cannot be defined or described using space-time concepts. The forms existing in them are much more abstract. There is an analogy in today's physics for this kind of abstraction. We have already mentioned in [Section 3.2](#) that the original formulation of quantum theory by Heisenberg was written in terms of matrices without reference to space-time. In fact, theoretical particle physicists today often work with very abstract mathematical models that contain no reference to space-time notions. For example, it is routine to consider rotations and other operations in abstract, mathematical spaces that are in no way related to space-time.

The purpose of postulating a transcendental realm is to attempt to explain phenomena that have no other explanation. This is done in order to maintain some semblance of an objective reality, but the desperation in doing so is exposed by the fact that all transcendental realms, unlike the physical models in the abstract mathematical spaces mentioned above, are intrinsically unverifiable. In this they resemble the epicycles that Ptolemy invented in A.D. 140 in order to retain an earth-centered cosmology. The need to resort to such gimmicks conceals a fundamental defect that it would be better to reveal than to conceal.

The reason Goswami hypothesized a transcendental realm was to explain how wavefunction collapse could occur without violating Einstein locality. However, as we saw in [Section 7.8](#), in a transcendental realm it is meaningless to talk about the Schrödinger equation, its wavefunctions, and wavefunction collapse, all of which normally are conceived to occur in space-time. Conceiving a transcendental realm is tantamount to sweeping the whole problem under the rug so that it is out of sight, or to invoking an unexplained and unexplainable god as creator, or to implicitly admitting the impossibility of an explanation.

8.5. Are the transcendental realms and objective reality real?

We have come a long way from our discussion of objective reality and materialism in Sections [1.1](#) and [1.2](#). We have persisted in trying to find an objectively real explanation for all observable phenomena. In doing so we have seen that the concept of objective reality starts to become so unwieldy that it threatens to collapse under its own dead weight. The transcendental realms can hardly be called objective since it is impossible to observe them either directly or indirectly, and there is no agreement at all about their properties, existence, or

even necessity. Scientifically, we were driven to consider them by our embarrassment at having to deal with either hidden variables (Bohm's holomovement) or wavefunction collapse (Goswami's theory), but we ended up with something that is even less tenable. The inescapable progression of our thought from the material and tangible to the immaterial and incomprehensible strongly suggests that we are reaching the limits of science, and perhaps even breaching them (see also the discussion of this point in [Section 6.10](#)). It also strongly suggests that science is incapable of explaining everything, a possibility we already discussed in [Section 5.6](#).

The transcendental realms were invented to attempt to explain how the manifestation arises out of the unmanifest, and are imagined to hold an intermediate position between the two. It is easy to see that this is no explanation at all because we then are forced to ask, how does the transcendental itself arise from the unmanifest? ... ad infinitum. This is suggestive of Bohm's infinite hierarchy of implicate orders, probably the ultimate in unverifiable concepts. Perhaps the real problem is our insistence on an objective reality in the first place. We question that assumption in [Chapter 9](#).

Chapter 9. Perception

9.1. First, a review of the physics

First, let us review where physics has taken us.

In [Sections 6.9](#) and [6.10](#), we saw that our insistence on an objective reality forced us into the unappealing paradox of accepting nonlocality in wavefunction collapse, in hidden variables, or in many worlds, but which is nonphysical and unverifiable. From a metaphysical point of view, physics serves us best when it reveals the paradoxes such as these that are inherent in its initial assumptions.

If the existence of an objective reality can never be verified by observation, it can have no effect on any observation. However, even though an objective reality itself can have no effects, the concept of one certainly can. We shall now see that it is our belief in this concept that causes all of the suffering there is.

In [Section 7.3](#), we saw how Goswami hypothesized the appearance of an objective reality within the context of monistic idealism. (Henceforth, we shall use the term nonduality to refer to this context rather than monistic idealism. The difference is that the former is a teaching while the latter is a philosophy; see [Section 1.5](#).)

In order to circumvent the nonphysicality of wavefunction collapse in space-time, Goswami's theory assumes that wavefunctions exist in a transcendental realm outside of space-time. But in [Section 7.8](#) we saw that neither wavefunctions nor wavefunction collapse, both being defined in terms of space-time, can exist outside of space-time. Thus, Goswami unintentionally reveals the paradoxical nature of the very transcendental realm that he hypothesized to remove the paradox of wavefunction collapse in space-time! In addition, no transcendental realm is verifiable, as we saw in [Section 8.4](#). Because of all of these problems, in [Section 8.5](#) we continued to question the whole concept of objective reality.

Now, let us leave physics behind because it does not help us to understand either perception or the perceiver.

9.2. What is the perceived?

In the meditation for July 24 in *A Net of Jewels* (1996), the sage Ramesh Balsekar says,

"The very existence of the manifestation depends on its being perceived. Space and time do not otherwise exist. When the sense of presence as consciousness is not there, there *is* no manifestation. The only truth is BEINGNESS, here and now."

And in the meditation for August 26, he says,

"Whatever is happening is always happening only in the mind that perceives it."

We shall talk about two different types of mental processes. Perceiving is the simple appearance of movement in Consciousness. Movement in Consciousness is perception itself, and it has no separate parts. On the other hand, conceptualization is the process of separating and naming. This requires intellect (a concept), and consists of mentally separating part of the movement from the rest, and giving it a name. Thus, all concepts are characterized by name and form, so conceptualization fragments movement into separate concepts.

All words are concepts, thus all spoken or written communication is conceptual. This entire course is conceptual but it points to what cannot be conceptualized. As an example, we shall distinguish between movement in Consciousness, or phenomenon, and Consciousness-at-rest, or Noumenon (discussed in the next section). These are not real distinctions because Consciousness is undivided, and thus are examples of conceptualization.

As we may say that movement in Consciousness is an appearance in Consciousness, we may also say that the manifest (phenomenon) is an appearance in the Unmanifest (Noumenon). We can conceptualize further by using the terms, the manifest, the manifestation, phenomenality, and phenomenon almost interchangeably, with slight differences as determined by the context.

A concept can be "external", detected by one or more of the five "external" senses such as hearing or seeing, or "internal" like a thought, feeling, emotion, or sensation. In [Section 1.1](#), we made a distinction between the concepts of "objective reality" and "subjective reality". We said that objective reality is external to, and independent of, the mind and can be observed and agreed upon by myself and at least one external observer. Subjective reality is internal to the mind and can be observed only by myself. (We also said that certain mental phenomena can be considered to be objective if they can be verified by an external observer.)

The concept of objective reality rests on the assumption, introduced in [Section 1.1](#), that there exist observers who are external to me, and who can confirm my own observations. From childhood, we grew up without questioning this concept, so it sounds very natural to us. But now we shall see that this so-called "objective reality" is no different in principle from "subjective reality" and is not reality at all, but is nothing but a concept. This may begin to make sense if we stop to consider that, not only is objective reality supposed to be external to, and independent of, my mind, but so also is the "external" observer whom I depend on to

confirm my own observations of objective reality. However, the external observer who communicates with me is not in fact independent of my mind at all, but is part of my subjective reality, i.e., is an image in my mind.

Reality is what is, without conceptualization. However, objective reality is only a concept and cannot be proved. Even though it is useful for communication, for health, and for survival, it does not represent Reality, and therefore it will bring suffering if it is taken to be real. Suffering comes because it defines external observers as being objects that are external to me, so that logically I am an object that is external to them. Thus, it defines me as being part of their objective reality, which means that I am separate from them. As long as I identify with a separate, objective me, I will be unable to realize my true nature and I will suffer.

Another problem with defining myself as an object is that all objects change in time, i.e., they are all temporal, so they all appear and disappear in time. Am I willing to accept that my true nature is purely temporal? As we stated above, the concept of objective reality has physical survival value. But it has only passing physical survival value, because everything in "objective reality" comes and goes, and nothing in it survives.

We have defined "subjective reality" as that which can be observed only by me, with the intention of including in it all of my subjective experiences, namely, my thoughts, feelings, emotions, intuitions, etc. As discussed above, it is clear that there is no intrinsic difference between this subjective reality and the objective reality that we have previously defined, since all "external" observers are only images in my mind. "Objective reality" becomes nothing but an appearance or image in my mind just as "subjective reality" is. All mental images come and go, and this is as true of the images of "objective" objects as it is of "subjective" objects.

The world in my mind is the only world that I can perceive directly. All bodies and other objects in this world are nothing but images in my mind. (The concept that there are no other minds than mine is a statement of solipsism, first proposed by the French philosopher, René Descartes, 1596 - 1650.) If I accept the concept that other minds contain their own individual worlds, (a metaphysical assumption that cannot be proved), there are as many worlds as there are minds.

On page 96 of *The Wisdom of Nisargadatta* (1992) by Robert Powell, the sage Nisargadatta Maharaj says,

"All exists in the mind; even the body is an integration in the mind of a vast number of sensory perceptions, each perception also a mental state ... Both mind and body are intermittent states. The sum total of these flashes creates the illusion of existence."

and on p. 201 of *I Am That* (1984), he says,

"Learn to look without imagination, to listen without distortion: that is all. Stop attributing names and shapes to the essentially nameless and formless, realize that every mode of perception is subjective, that what is seen or heard, touched or smelt, felt or thought, expected or imagined, is in the mind and not in reality, and you will experience peace and freedom from fear."

In [Section 4.3](#), we introduced the concept of Einstein locality, now to be referred to simply as locality. Since space-time is nothing but a concept within each mind (see [Section 14.1](#)), locality is also only a concept within each mind. Now we ask, if each mind consists of its own world, how can these minds (worlds) communicate with each other? In other words, we know that a person in my mind can communicate with another person in my mind, but how can a person in my mind communicate with a person in your mind?

In [Section 5.2](#) we introduced the concept of nonlocal mind but without relating it to nonlocal Consciousness. In [Section 6.5](#) we saw that the consciousness of all local observers is really nonlocal Consciousness. If it were not nonlocal, minds would have no means of communicating with each other. Thus, we see that communication between minds occurs because Consciousness is nonlocal, even though worlds are separate and individual.

We know that individual minds (worlds) are highly correlated with each other because many of the same objects and events appear in different minds. Thus, both your body and mine may appear in my mind as well as in yours, but the images in my mind are different from those in yours, so the bodies are different. The way we know they are the same bodies is because of nonlocal communication between us. However, we must not forget that the existence of other minds is only a metaphysical concept, albeit sometimes a useful one.

Nonlocal communication between minds is experienced as an interpersonal connection which transcends verbal communication (see [Sections 5.2, 5.6](#)). This is most clear whenever ego conflicts between minds are not so strong that they obscure the nonlocal connection, such as in many parental and filial relationships, sibling relationships, close personal relationships, support groups, therapy groups, and meditation groups (see [Section 14.2, Chapter 16](#)).

If minds were not nonlocal (see also [Section 9.4](#)), many disagreements between them could never be resolved because minds that are separate necessarily have different experiences, perceptions, and beliefs. Hence, wars between religions, political ideologies, nations, and socioeconomic classes would be inevitable.

9.3. Who is the perceiver?

(In this section we begin the convention of capitalizing all nouns that refer to noumenal or transcendental Reality, while referring to the phenomenal manifestation with lower case nouns, except where grammar requires capitalization.)

In the meditation for October 13 in *A net of Jewels* (1996), Ramesh says,

"Other than Consciousness nothing exists. Whatever you see is your own reflection. It is only through ignorance of your true nature that the universe appears to exist. One who understands with conviction that the universe is nothing but an illusion becomes free of it."

Now we investigate more carefully what or who the "I" is that is perceiving. It may seem absurd to ask the question, "Who is perceiving this (whatever is being perceived)?", since the answer clearly seems to be, "I am." However, in the light of the previous section, we must be careful. Is the "I" that is perceiving separate from all other perceivers? If it is separate, then it

must be nothing but a conceptual object! All separate objects (that is, all objects) are conceptual. Any concept is the result of an intellectual process, and consequently, the separate "I" is only the result of an intellectual process. The most pervasive example of conceptualization is the concept of the individual, because the essential nature of the individual is its separation from everything else (the other).

Perceiving still implies the presence of an awareness, without which there could be no perception. What is this awareness?" This is the crucial question that we shall be investigating throughout this entire course. This Awareness is what is sometimes called the Self. However, calling it the Self is misleading, because it is not an object. It is what I really am, my true nature. It is Consciousness-at-rest, Noumenon, nonlocal Consciousness, the Unmanifest, or pure Subjectivity. This means that it has no qualities or characteristics whatever. It cannot be perceived, conceptualized, objectified, or described. Because it is what I am, I cannot see it or imagine it. Thus, the terms we use are all pointers, not identifiers or descriptors.

We shall make a distinction between the concepts of pure Subjectivity and pure objectivity, between the concepts of pure Awareness and perception, or between the concepts of the Unmanifest and the manifest. Because separation is only a concept, the Unmanifest and the manifest are not really separate. Nevertheless, we shall see that (conceptually) the Unmanifest is the only Reality because it is unchanging (it has no qualities), while the manifest, because it is constantly changing (another concept), is not real but is only a shadow or reflection of Reality. Another way to see this is that there is no manifest without the Unmanifest, but the Unmanifest is, whether or not the manifest appears. The deep sleep or anesthetized states are examples of the Unmanifest without the manifest. The dreaming and waking states are examples of the Unmanifest with the manifest.

The only thing you know for certain is that you are aware, and you know that you are aware. You, as Awareness, are the only Reality there is. You are not an object; You are pure unmanifest Subjectivity, which is beyond all conceptualization. All else is conceptual and subject to change and loss. Whatever changes cannot be You because You are changeless. You are not in any world; the worlds are all in You. You are not in space and time because they are nothing but concepts, so they are in You. There is nothing outside of Awareness so there is nothing outside of You.

Eventually, You will see that there is no difference between Awareness and the contents of Awareness, between pure Subjectivity and pure objectivity, or between Noumenon and phenomenon. That is why You are everything and everything is You.

The Awareness of every mind is the same Awareness. If it were not, there would be no communication between minds. The Awareness that You are is the Awareness that the sage is. However, the world of the sage is as local and as individual as the world of the ordinary person. The difference is that, in the sage, Awareness is not identified with the I-concept as it is in the ordinary person (see Sections [7.6](#), [7.7](#), and [11.2](#)).

When Awareness identifies with the I-concept, the illusory I-entity results. Whenever such a presumed, separate I-entity appears, suffering inevitably results. Without this identification, there is no suffering because there is no individual to suffer. That is why suffering can disappear only when identification with the I-concept ceases. One example of the kind of

suffering that occurs is the desire/fear experienced whenever a presumed, separate I-entity clings to, or is attached to, other perceived objects, whether these objects are "external" physical objects, or "internal" thoughts, feelings, emotions, or sensations (see [Section 24.4](#)). Another example is the fear/desire that results from the opposites of clinging and attachment, namely from resistance or aversion to some such object, whether it is "internal" or "external".

Disidentification may happen either through the deepening understanding and acceptance that there is no individual "I" as thinker or doer, or through enquiry into the existence of the separate I-entity and increasing awareness of one's true nature. The former is the teaching of Ramesh Balsekar and his enlightened disciples. The latter is the teaching of Ramana Maharshi and sages who consider themselves to be his enlightened disciples (Ramana Maharshi claimed that he had no disciples).

9.4. A new concept of objective reality

The only world that we can directly perceive is the one in our own mind. However, while the world in each mind is necessarily local, minds themselves are nonlocal. Thus, as we saw in [Section 9.2](#), the nonlocality of minds is an experience that everybody has.

While the world in each mind is individual and local, there is still only one Awareness. That is what makes minds nonlocal. Neither You nor I is a mind because We are the Awareness that is aware of all minds. But because Awareness has identified with each mind separately (see [Section 7.6](#)), the world in each mind is separate from all others.

In this concept, the objects in any mind are still purely conceptual. However, every conceptual object must appear in at least one mind so there are no objects that are unobserved and thus that are outside of, or independent of, Awareness. This is contrary to the usual definition of objective reality which states that objects exist whether or not they are observed. We now consider a modified definition of objective reality, which requires that all objects in the objective reality exist by agreement of more than one mind, but never exist outside of a mind. (However, do not forget that all of this is still nothing but a concept.) Even if there are other worlds, you can still never directly experience the world in any mind but yours (see [Section 5.5](#)). In this regard, our world is uniquely our own (see [Section 9.2](#)). However, this does not mean that separate minds can not communicate with each other. Nonlocality permits this (see [Sections 4.3, 5.2, 9.2, 14.1, 14.2, Chapter 16](#)).

9.5. Objectification, the body-mind organism, and the primacy of the concept of memory

As we have seen, all objects, including the body-mind organism, stem from concepts. (As we shall see in [Section 11.2](#), objects appear when Consciousness identifies with these concepts. We can call this process objectification.) The world in each mind can be conceptualized as simply a collection of thoughts, feelings, emotions, sensations, and perceptions. In this conceptualization, the body-mind organism consists of thoughts, feelings, emotions, sensations, and some of the perceptions, while the "external" world consists of the remainder of the perceptions. The focus of this course is to see that all objects, especially the individual "I", are fundamentally conceptual, although some objects appear deceptively persistent and solid.

The concept of memory leads to the persistency of mental images. As we shall see in [Section 14.1](#), memory is the basis for all experience, so memory is primary to all other concepts. (In Goswami's model of the brain, the classical part is responsible for memory; see [Section 7.4](#).) Without the concept of memory, there can be neither continuity nor change, so there can be no other concepts, no experiences, no individual "I", no body-mind organism, and no world. In particular, because we can never directly experience any objective past, present, or future, it is clear that they also can only be concepts.

On page 71 of *The Wisdom of Sri Nisargadatta* (1992) by Robert Powell, Nisargadatta says:

"In the great mirror of consciousness, images arise and disappear, and only memory is material--destructible, perishable, transient. On such flimsy foundations we build a sense of personal existence--vague, intermittent, dreamlike. This vague persuasion: "I am so and so" obscures the changeless state of pure awareness and makes us believe that we are born to suffer and to die."

9.6. The "hard problem" in consciousness science

Because most scientists of all types are mentally wedded to a belief in objective reality, they are unable to see an alternative picture. In particular, they are unable to see that Awareness, rather than objective reality, is the fundamental Reality. Thus, they persist in attempting (and in failing) to create an objective theory of subjective experience. When the contents of Awareness try to objectify Awareness, it is like a puppet trying to "puppetize" the puppet master (see [Section 13.3](#)), a picture on a movie screen trying to "pictureize" the actors (see [Section 13.2](#)), a shadow striving to "shadowize" the object that is casting it (see [Section 13.4](#)), or humans trying to "humanize" God.

The problem of trying to create an objective theory of subjective experience has been labeled the "hard problem" of consciousness by David Chalmers (see *Scientific American*, Dec. 1995, p. 80; and <http://www.u.arizona.edu/~chalmers/papers/facing.html>). (The so-called "easy problem" is to explain the functioning of the brain in terms of objective concepts.) In fact, there is no hard problem for those who are aware that they are aware.

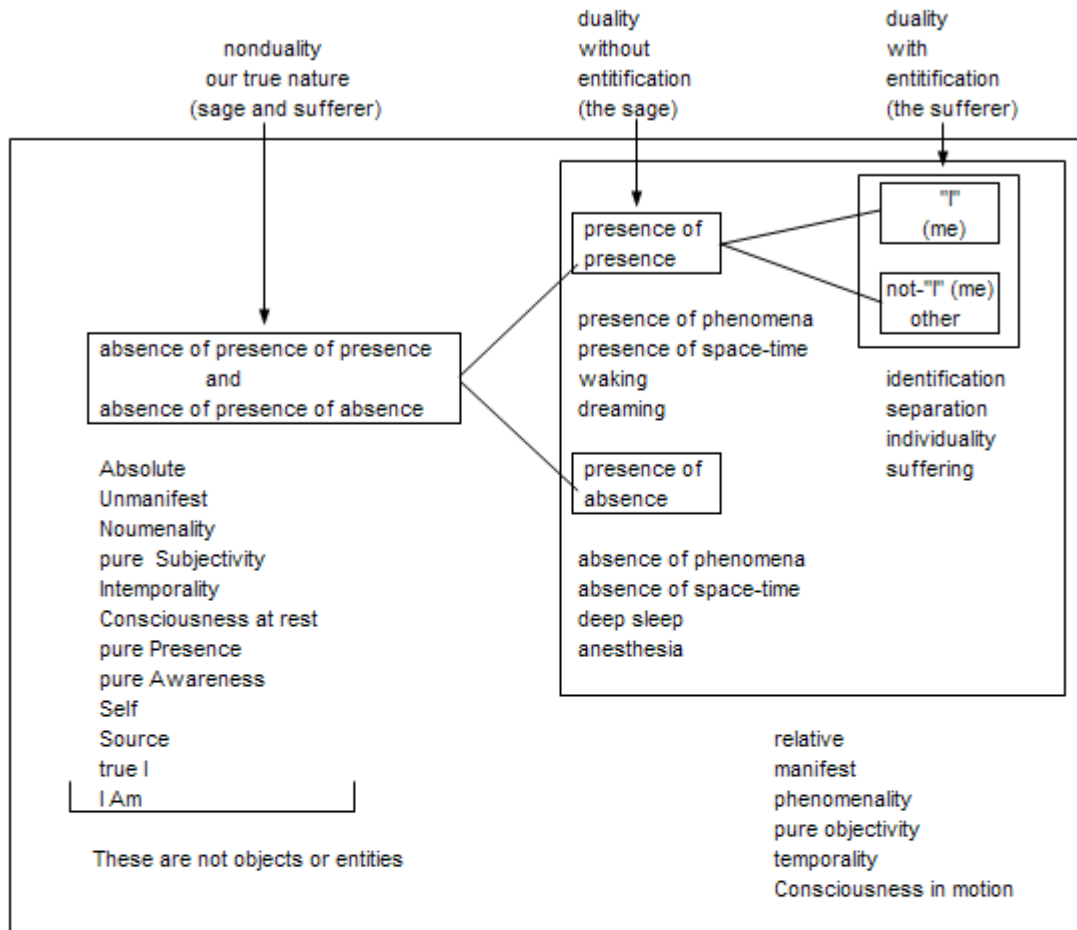
Chapter 10. The teaching of nonduality

10.1. The metaphysics of nonduality

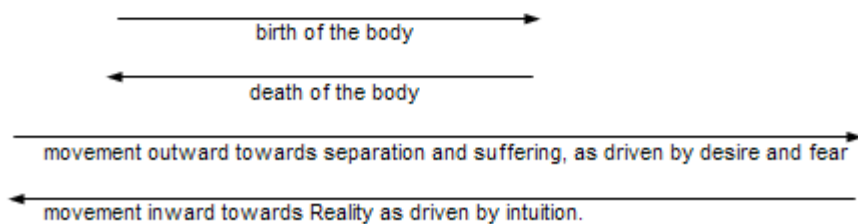
By now you may be getting the impression that we will be questioning the reality of all objects in this course, and if you are, you will be correct. No object will be excluded from this examination because until you understand that no object is real, and all are conceptual, you will not be free.

The statement of nonduality is that Consciousness is all there is. Advaita, the Sanskrit word for nonduality, means absence of both duality and nonduality. There is neither duality nor nonduality in Consciousness, since both are nothing but concepts. This means that Consciousness cannot be objectified---rather, it is transcendent to all objectification. Consciousness includes all existence, all absence of existence, and all that transcends both existence and non-existence. Even though it cannot be described, we attempt to represent it

by the structure shown below.



Noumenality and phenomenality cannot be separated, and together comprise Totality or What-Is. Objects are not real, being only a reflection of Noumenality.



Within the illusion of time, turning inward is followed by disidentification from the I-concept and the disappearance of the fictitious I-entity.
Death of the body is total disidentification and the disappearance of all phenomenality.

Figure 1

This structure is conceptual only, not real, because, in fact, there is no separation of any kind. All separation is conceptual, thus, all objects are conceptual. Since no object is real, no object exists. In fact, existence itself is only conceptual (see more discussion of this in [Section 11.2](#)).

We use concepts in order to be able to communicate with each other about Consciousness. In actuality, there is only Consciousness and there is nothing but Consciousness (see [Section 9.2](#)). There are no separate individuals, and there is no separate "I". The illusion of separation (maya, see [Section 14.7](#)) is the illusion that there is a world that is separate from us. Since there is no separate "I", there is no ability, volition, or freedom to think, feel or act separately. Everything that happens, including all of the thoughts, feelings, emotions, sensations, perceptions, and actions of the "individual", happens completely impersonally and spontaneously (causelessly). Indeed, the manifestation itself, including the illusion of causation, appears completely spontaneously.

For the purposes of communication, some sages will sometimes refer to Consciousness as God, and may say that all that happens, including all thinking, feeling and doing, is done by God. However, we shall not use the "G-word" because it erroneously implies that Consciousness is an entity that is separate from us and that can do something, and to which we might ascribe emotions and intentions. For example, we may be tempted to ask, "Why did God create suffering?" or, "Why is God doing this to me?" However, in fact, Consciousness is not an object or entity at all, let alone one that has emotions or intentions. Consciousness does not and cannot "do" anything, because there is nothing but Consciousness, so there is nothing separate for Consciousness to act on, to feel, or to think about.

In the meditation for September 24 in *A Net of Jewels* (1996), Ramesh Balsekar says,

"We neither exist nor not exist. Our true nature is neither presence nor absence but the annihilation of both."

Spiritual ignorance is the result of Consciousness identifying with the concept of a separate "I" (see [Sections 5.11](#), [7.6](#), [7.7](#) and [11.2](#)), resulting in an illusory I-entity which is separate from all other objects and entities, and which is erroneously accompanied by the belief that it has the power to do, think, and choose. Self-realization, awakening, enlightenment, and disidentification are terms applied to the disappearance of this sense of personal doership, simultaneously with the realization that there is nothing but Consciousness. Awakening is experienced as absolute, total, and timeless freedom and peace, either with or without activity. Simultaneously there is the deep intuitive conviction that our true nature is pure unmanifest Awareness, or pure Subjectivity, and that it transcends and underlies all phenomena. Because of this, it is without limits. Other terms that we shall use for pure Awareness are the Self, Noumenality, or Reality. Reality is not something that can be conceptualized or described, but it can be pointed to. Enlightenment, or awakening, is the natural result of spiritual evolution.

Before enlightenment, the movement outwards towards the world and separation is driven by desire, fear, and suffering, while the movement inwards towards Reality is driven by intuition, apperception (inner awareness), decreasing attachment to the external, and the urge to know one's true nature. It is accompanied by an increasing sense of freedom, wholeness, and peace. These are not true movements because there is no place to go, for Consciousness is always What-We-Are, but initially they may be experienced as movement. The perception that we are separate and we are what is perceiving, doing, thinking, feeling, and acting is a movement outward, while understanding and inner awareness are movements inward. Before enlightenment, the inward and outward movements alternate with each other because neither can be sustained indefinitely by itself. Whereas phenomenal events occur in time and appear to obey the law of causality, awakening or enlightenment obeys no laws of phenomenality and

therefore it occurs from outside of time and cannot be predicted, achieved, attained, or provoked.

10.2. The practices

None of the concepts in the teaching of nonduality are mere dogma. They are all empirically verifiable. For example, the absence of free will, or volition, has been confirmed scientifically ([Section 5.9](#)) and logically ([Section 5.10](#)), and can be verified simply by watching the mind, and seeing that all thoughts, without exception, arise completely spontaneously ([Section 5.12](#)). Thus, the thought that “I” shall decide one way or another also arises completely spontaneously, and therefore is not an act of free will. The absence of an individual thinker is verified by asking, “Who is it that is thinking this?” or, “Who is the “I” that is thinking this?”, then looking for the thinker, which cannot be found. Similarly, the absence of the doer is verified by asking, “Who is it that is doing this?” or, “Who is the “I” that is doing this?”, and looking for the doer, which also cannot be found. Now if we ask, “Who is it that is looking?”, the observer cannot be found either.

The practices just described give confidence in the teaching. To advance the inward movement towards enlightenment, one can enquire further by asking, “What is aware of all of this?” What is aware cannot be seen because it is unmanifest. Asking such questions and looking inward in this manner allows us to begin to sense that we are not really individuals, but in fact are unmanifest, impersonal Awareness, which is the absence of the individual and of all objects. Thus, the way to know what you are is to see what you are not. Another way to state this is that noumenal presence is equivalent to phenomenal absence. It is the pure Awareness in which the body-mind organism, and indeed the entire universe, appears and disappears. Because noumenal presence is not the extinction of pure Awareness (see [Figure 1](#)), there is no reason to fear the disappearance of the phenomenal self.

The practices described above are called enquiry and are discussed in greater detail in [Chapter 22](#). They really include two practices: Self-enquiry (capitalized) is enquiry into our true nature, while self-enquiry (uncapitalized) is enquiry into the ego or I-entity. They are variants of the basic practice, which is to ask, “Who am I (really)?” This seemingly simple practice is actually extremely profound because it expresses the only true purpose in anybody’s life. All seeking for happiness, satisfaction, or fulfillment is merely a distortion of this one purpose of finding our true nature. Whether we realize it or not, we who think we are individuals are all seeking to find our Source, which is our true Self. Enquiry stops the mind and turns it towards Source, which seems to be inward, but which is really all there is. Enquiry is emphasized in the teachings of sages who consider themselves to be disciples of Ramana Maharshi.

An alternative approach to Reality is not really a practice, but rather is the increasingly deep understanding (discussed further in [Chapters 20](#) and [21](#)) of the absence of the individual doer. Spiritual understanding arises as we see that all functioning of the manifestation happens completely spontaneously and impersonally. We see that the concept of doership (including thinkership, feelership, and observership) is equivalent to the concept of the individual, and this is the source of all bondage and suffering.

The deeper the understanding, the clearer it is that the individual and all of its suffering are, and always have been, nothing but an illusion. This is equivalent to seeing that there is no doer

and there never has been a doer. Acceptance of this means accepting the absence of all responsibility, regret, and guilt, and is equivalent to surrendering to the functioning of Totality. This understanding is emphasized in the teaching of Ramesh Balsekar and his enlightened disciples.

Ramana Maharshi (1879 - 1950), considered by many to be the greatest Indian saint of the twentieth century, taught that enquiry and surrender (see [Chapter 19](#)) are the only practices that lead to awakening (see, e.g., *The Teachings of Ramana Maharshi*, edited by Arthur Osborne, 1962). Nisargadatta Maharaj (1897 - 1981), Ramesh Balsekar (1917 -), and Wei Wu Wei (- late 70s) all stress understanding, which is really a form of enquiry (see [Chapter 20](#)). All other practices must eventually reduce to these at some time or other if understanding is to deepen further.

10.3. The paths

Enquiry and understanding comprise the spiritual path known as jnana yoga, the path of understanding (a sage of jnana is called a jnani). It is one of three classical Hindu spiritual paths (see, e.g., the beautiful translation of the *Bhagavad Gita* at <http://www.bhagavad-gita.us/introduction-to-bhagavad-gita.htm>). The other two are karma yoga, or selfless service, and bhakti yoga, or devotional surrender (the devotee is called a bhakta). These three paths correspond to the three different types of personalities most attracted to them. Bhaktas are usually “feelers”, karma yogis are usually “doers”, and jnanis are usually “thinkers”. In general, we can say that there are far more bhaktas than either of the other two, and there are far fewer jnanis than either of the other two. However, there is much overlap among the three paths, and no person ever exclusively follows one or the other. Jnana is particularly well suited for academic study because of its emphasis on the intellect. However, intellectual understanding is only the first step, and, indeed, it can become a hindrance later when it must be succeeded by intuitive understanding.

In the meditation for October 18 in *A Net of Jewels* (1996), Ramesh Balsekar says:

“Though in itself limited, a developed intellect is nonetheless necessary as the one faculty that can bring us to the brink of true Advaitic understanding. The person with a keen intellect becomes enlightened even when the instruction of the guru is imparted casually, whereas without it the immature seeker continues to remain confused even after a lifetime of seeking.”

“A mature and penetrating intellect will not have divorced itself from intuition and bound itself so extensively in logic and reason as to obstruct its natural receptivity to the spontaneous arising of divinity.”

10.4. About death

Because all bodies die, if you identify with the body, you will fear death. When you see that you are not the body, you will be indifferent to death. In [Chapter 21](#) and [22](#), we shall see directly that we are Reality, which is unchanging and cannot die. We are not what changes, which is unreal and must die.

All sages attempt to answer the seekers' question, "Where was 'I' before the birth of the body?", and, "Where will 'I' be after the body dies?" Ramesh Balsekar (whose books, *Your Head in the Tiger's Mouth* (1998) and *Who Cares?* (1999), are excellent summaries of his teaching) teaches that, when the body dies, Consciousness simply disidentifies from it (see also Ramesh's book, *A Net of Jewels* (1996), meditations for April 13 and June 10). Indeed, the death of the body is the result of Consciousness disidentifying from it. Since there was no separate "I" before death, there is none after death, so there is no entity to continue after death. Thus, there is neither an after-death nor a before-death state for the "I" since it has never existed in the first place. Without a body there is only pure unmanifest Consciousness.

Since there never is a separate "I", there can be no entity either to incarnate or to reincarnate. Ramesh explains the existence of individual characteristics of the body-mind organism as a result of conditioning and heredity (see also [Section 5.14](#)). [Note: Ramesh says that heredity includes differences projected from the "pool" of consciousness (see [Section 8.3](#)), as well as genetic differences. (The "pool" is a concept that cannot be verified; see Sections [8.4](#), [8.5](#).) Ramesh uses this concept to try to explain the origin of body-minds that are strikingly similar to previous ones, as in the concept of reincarnation. From the "pool", he says the body-mind may inherit characteristics from previous body-minds, but there is no previous lifetime of the "I" since there is no "I".]

Some sages teach that, in the absence of the body, Consciousness is still aware of itself. The evidence they cite is an awareness that they say exists during deep (dreamless) sleep. However, note that, in the February 4 meditation in *A Net of Jewels* (1996), Ramesh states,

"The original state of the Noumenon is one where we do not even know of our beingness."

This is the state before birth and after death. Since there is no body in this state, there is only Noumenon. This state is not identical with the states in dreamless sleep, under anesthesia, or while comatose, because in those states there is still rudimentary sentience associated with the brainstem (as seen by an outside observer). Dreamless sleep, anesthesia, and coma are examples of the presence of absence as depicted in [Figure 1](#). These are not the same as death because, after the body dies and before it was born, there is a double absence--the absence of the presence of the manifestation and the absence of the absence of the manifestation. The only way to describe this state is that it is neither presence (waking) nor absence (sleep).

Although all religions attempt to give some picture of what we will be after death, they are all based on ego fears and desires rather than on personal experience. The ego may insist that it will continue to exist after the death of the body, but in so doing, it defies the direct evidence of everyone's disappearance during deep sleep or anesthesia. If the reader cares to imagine some picture of personal life before birth and after death, he or she should be aware that there never can be any kind of direct proof of such states. Some people think that thought can exist without a body, so that the "I" concept (the soul) may prevail after the death of the body. But if that state cannot be verified, how can it be said to have existed at all (see [Section 9.4](#))?

After-death states, such as those described in the *Tibetan Book of the Dead*, by necessity are intuited or cognized by a living person, so the reliability and motives of that person must be

considered. Any intense, personal experience, such as a near-death experience, cannot be proof because such experiences by definition and necessity are not death experiences. The appearance of discarnate entities, such as spiritual guides, deceased relatives, or religious figures, are also not proof because they always appear in living body-mind organisms and therefore could merely be mental phenomena.

Because near-death and out-of-body experiences require the presence of a brain, they cannot reflect what happens after death. In fact, out-of-body experiences can even be produced at will by electrically stimulating the right angular gyrus region of the brain (see "*Stimulating own-body perceptions*", Blanke, Ortigue, Landis, and Seeck, *Nature*, 419 (2002) 269 - 270).

In the April 7 meditation of *A Net of Jewels* (1996), Ramesh says:

"There are many reports of what are popularly considered 'death-experiences', which are mistaken as evidence of what happens after death. These are in fact only hallucinations experienced by the ego arising from stimulation of certain centers of the brain before, not after, the completion of the death process. Most of the mystical phenomena recorded as yogic experience are of the same order, movements in consciousness experienced by the ego. But when man finally surrenders his miserable egoic individuality, there is no experience of anything. He is the Totality itself."

In the April 4 meditation of the same book, Ramesh says:

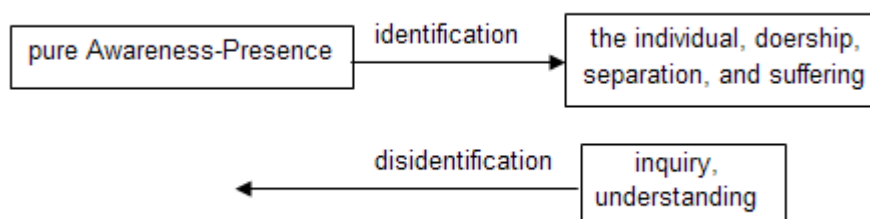
"My relative absence is my absolute presence. The moment of death will be the moment of highest ecstasy, the last sensorial perception of the psychosomatic apparatus."

On p. 181 of *I Am That* (1984), Nisargadatta (Ramesh's guru) says,

"Everybody dies as he lives. I am not afraid of death, because I am not afraid of life. I live a happy life and shall die a happy death. Misery is to be born, not to die."

10.5. Summary diagram

When the previous diagram is stripped of all nonessential concepts, it becomes the following:



Note: The Web page at <http://www.sentient.org/galen> was written by Galen Sharp and is a succinct and clear description of the thinking that produces the concept of the individual "I",

and how this concept is dissolved. Galen was a disciple of Wei Wu Wei, the author of *Posthumous Pieces*, 1968, and *Open Secret*, 1970, two very important books of metaphysical pointers to Reality (see [Appendix](#)).

Chapter 11. The functioning of the mind

11.1. The nature of duality

In this chapter, we shall depart from the trend of Chapters 9 and 10 by focusing our attention on the world instead of on what we really are. However, it will be helpful for the reader to keep in mind the lesson of those chapters, viz., that there is nothing but Consciousness. Everything else is a concept. But, in order to continue our course, we must attempt to conceptualize that which cannot be conceptualized.

In [Section 8.5](#), we saw that the conventional concept of objective reality rests on shaky grounds (a new definition was given in [Section 9.4](#)). In [Section 9.2](#), we saw that all separation between objects is purely conceptual because there is no separation within the wholeness of Consciousness. Likewise, we saw in [Section 9.3](#) that the separation between pure Subjectivity (Awareness) and pure objectivity is also purely conceptual. These are examples of the way we shall use concepts to point to what is beyond concepts.

Since concepts are formed by splitting off one part of the whole from the rest, they invariably come in the form of polar pairs, that is, of pairs of inseparable opposites (e.g., “I” and not-“I”). A pair forms an indivisible whole. Thus, the two opposites must always appear together, and are conceived from what is inconceivable. Since wholeness appears to have been broken, nonduality appears to have been replaced by duality. However, this is only an appearance, a result of conceptualization, since Consciousness is always intrinsically whole.

The appearance of duality implies a boundary line between one part and its opposite. As we shall soon see, one of the inevitable consequences of any boundary line is its potential to become a battle line, with all of the suffering that it entails.

All polar pairs, or dualities, are only conceptualizations in mind, and come and go in mind without affecting Consciousness, just as a reflection can come and go without affecting its source. All conceptual phenomena are merely reflections of Consciousness in Consciousness (the metaphor of [Section 13.9](#)). They are the restless waves that appear on the silent sea (the metaphor of [Section 13.4](#)).

The Chinese yin/yang symbol shown below is a striking representation of duality. It graphically shows how Wholeness (the outer circle) appears to be broken into the two polar opposites, yin (dark) and yang (light). Each part contains the seed (a small dot) of the other part, representing the ease with which yin/yang can change into yang/yin. The boundary line between the two represents potential conflict, while Wholeness Itself is never disturbed by any appearances within it. In Chinese philosophy, yin signifies the female (moon) principle, and yang signifies the male (sun) principle, but, more generally, they represent any pair of polar opposites.



11.2. The three levels of identification: manifestation, objectification, and personalization

In [Chapter 9](#), we used the term individual mind, although we found that Awareness of all minds is universal, not individual. In simplest conceptual terms, a mind can be divided into thoughts, feelings, emotions, sensations, and perceptions. All of these are nothing but concepts dividing Consciousness, so none is more real than another. However, we tend to equate intensity and persistence with reality, so the last items in the list can seem to be more real than the first items. For example, emotions, sensations, and perceptions can seem to be more real than feelings and thoughts because they can be more intense and persistent. However, the world and the body are not inherently more real than feelings and thoughts are.

On p. 48-49 of his book *Eternity Now* (1996, see [Appendix A1](#)), the sage, Francis Lucille, says that truth, love, and beauty transcend concepts, and come directly from the Unmanifest and are pointers to the Unmanifest. On p. 70, he also says that positive feelings and emotions like love, happiness, gratitude, awe, respect, and sense of beauty come from beyond the mind, and they generate release, relief, and relaxation at the somatic level. These are to be contrasted with negative emotions, like anger, hatred, and fear, which come from the mind, and which generate stress, heaviness, pressure, constriction, and tension at the somatic level.

We have seen two conceptual explanations of how the world appears out of the transcendental: 1) wavefunction collapse, given [Section 7.3](#), and 2) the projection of the explicate order out of the implicate order, given in [Section 8.1](#). Both concepts have the logical difficulties that are discussed in [Section 8.5](#). A simpler, more general, and more verifiable concept is that the world appears when sentience appears within Consciousness. This is the first level of identification, the level of manifestation itself (we shall talk about three levels). Sentience is the mechanism by which Consciousness becomes aware. (Conceptually, sentience requires a brain connected to sensory organs; see [Section 7.6](#).) There can be no universe without sentience to observe it, and there can be no sentience without a universe to observe.

At this first level, which is the level of the infant, Consciousness is identified with the whole because the concept of separation has not yet arisen. Until intellect arises, there can be no concepts, so there can be no distinction made between sentience and sensed, or between I and not-I. (This might also be the case with insects and the lower animals.) With the appearance of intellect in man and possibly the higher animals, the concepts of separation and duality appear. These concepts appear within nonduality, e.g., the concept of the individual mind (see [Section 9.2](#)) appears within nonlocal Consciousness. The working mind now appears (see [Section 11.6](#)) but still with no sense of personal doership or responsibility. This is the state of the sage.

In the sage, as distinct from ordinary people, there is no identification with the concepts of doership and responsibility. However, with the sage as well as with ordinary people, there is identification with name and form. This means that there is direct awareness of the body's thoughts, feelings, emotions, sensations, and perceptions, but there is no direct awareness of those of any other body (see [Section 9.2](#)). Thus, when the sage says "I", he often refers to "his" body-mind but never to another body-mind. (At other times, when the sage says "I", he often refers to Consciousness.) Ramesh says that identification with name and form is exhibited when the sage is addressed and the body responds. In the *Advaita Fellowship News* of August 2003 (<http://www.advaita.org>), he says:

"The really important thing to realize--there is no need to try to remember it--is that the fact that there is no individual doer does not mean that there is no doing, that there is inaction, but that the operation of doing happens in the form not of inaction but non-action. The ego--as identification with a name and form--will remain as long as the body remains, but after Self-realization, continues to function merely as a witness of the non-doing instead of as a doer."

[Note: In this passage, Ramesh uses the term "ego" to mean both identification with name and form after Self-realization, and identification with doership before Self-realization. In this course, we shall use it only in the latter sense.]

The concept of the separate "I" appears in the child after the appearance of the intellect, and after there is sufficient conditioning in the body-mind organism (see [Section 5.8](#)). Awareness then identifies with this "I" concept (the second level of identification) to produce the sense of personal doership, choice, and responsibility and the fictitious I-entity, ego, or individual (see, e.g., Sections [7.6](#) and [7.7](#)). Now there is objectification (which we may also call entification) as well as conceptualization, or dualism (which includes the sense of separation) as well as duality (which is purely conceptual).

Existence (which is objectification) is conceptualization plus identification. After Awareness identifies with the I-concept, the pernicious beliefs in the existence of the I-entity and of other objects arise. Objects seem real because they seem to exist independently of each other and of our awareness of them. However, independent existence is merely a concept, nothing but a product of intellect, identification, and belief. In Reality there exists no I-entity or any other kind of object. There is only Consciousness.

You are not an individual. As pure Awareness, You are Reality. Reality is the same whether your eyes are open or closed. When your eyes are closed and all thoughts and images are absent, You are the only Reality. When your eyes are open, and objects seem to be present, You are still the only Reality. Reality underlies and pervades all the objects that you perceive. That is why You are everything and everything is You.

Whenever there is the sense of personal doership and responsibility, there is also suffering because, in addition to the mind functioning as the working mind, it also functions as the thinking mind (see [Section 11.6](#)). However, the sage does not suffer even though there may be pain because there is no sense of personal doership and responsibility, and no thinking mind.

The beliefs in the existence of the "I"-entity and of the world are more persistent than they would be if they were known to be purely conceptual. Since the mind consists not only of thoughts, but also of feelings, emotions, sensations, and perceptions, identification and belief can percolate down to these other levels as well. In particular, the emotions of desire, fear, greed, guilt, shame, anger, hatred, envy, jealousy, frustration, and pride are compelling evidence for a continuing identification with, and belief in, the "I"-entity. Upon awakening, these emotions disappear (see Ramesh's 2000 book, *Sin and Guilt: Monstrosity of Mind*, and the meditation for June 1 *A Net of Jewels* (1996)). Other emotions may apparently arise, but there is no identification with them, so they do not cause suffering. In particular, when a sage exhibits what seems to be anger, it is usually not anger at all, but is intensity of expression so as to command attention.

Belief in existence is extremely persistent, and is virtually invulnerable to superficial mental practices, such as the mechanical repetition of aphorisms, affirmations, or denials. For example, the thought that I exist as an individual is not nearly as difficult to see through as the feeling that I exist. Therefore, in order for a practice to be effective, it must be seen and felt directly that there is no I-entity and there is no world. Such practices are the subjects of Chapters [20](#), [21](#), [22](#), [23](#), [24](#).

It is the appearance of the conceptual, dualistic individual that is the source of all conflict, suffering, and striving in the world. However, the individual is an illusion because the apparently individual awareness is actually still pure Awareness. There is always only one Awareness, never multiple awarenesses. The individual is only a conceptual object because its subjectivity is really pure Subjectivity.

When the I-entity seems to appear, a boundary seems to arise between itself and everything else. This is represented in [Figure 1 of Chapter 10](#) by the boxes in the upper right labeled "I" and "not-I". The boundary line between the "I" and the "not-I" becomes a potential battle line, with the "I" warring with the "not-I". The only way this battle line can be eliminated is for the "I" to vanish completely, i.e., for the recognition to occur that there never has been an "I"-entity. This is the perception of the sage, which, like the infant, is pure Awareness. The difference between the sage and the infant is that the sage has a well-developed intellect whereas the infant does not.

Because the sage is pure Awareness, when the sage speaks, it comes directly from Source without being corrupted by an "I"-entity. Similarly, when the seeker is aware of Awareness, or when the seeker seeks Reality, identification with the "I"-concept is weakened. This is pure Awareness seeking Itself.

We have seen that the first level of identification is the manifestation itself, when Consciousness becomes aware, while the second level is identification of Awareness with the concept of the separate "I" and its doership, resulting in the fictitious "I"-entity. The primary self-image of this illusory entity is that of observer, doer, thinker, decider, and experiencer. But conditioning and identification produce not only this false self, but also various kinds of thoughts, opinions, and images about the false self. Some examples of these are its competence, incompetence, beauty, ugliness, goodness, and evilness.

With the appearance of these concepts arises also the possibility that Awareness will identify

with them. This results in a third level of identification, the level of “mine”, consisting of many forms of embellishment on the basic “I”-entity. Without this third level of identification, the “I”-entity is bare, consisting only in the sense of doership (which includes observership, thinkership, and decidership), and the sense of responsibility. With it, which we may call personalization, or ownership, the “I”-entity becomes clothed not only in thoughts and images, but also in feelings and emotions. Then the possibility of many different kinds of suffering occurs. This third level of identification is the one that causes all the trouble (some might say all the fun) but it depends entirely on the assumed existence of the doer. This fully identified (clothed) “I”-entity seems to suffer unlimited agonies over whether it is good enough, beautiful enough, smart enough, competent enough, healthy enough, strong enough, loving enough, caring enough, and many other “enoughs”. It feels guilty about “its” actions in the past, and worries about how “it” will perform in the future. It sometimes sees itself as a bag of shit, and at other times, as a god or goddess. However, sooner or later it will see itself as a victim, i.e., as an entity that suffers at the hands of something else ([see Section 11.4](#)).

11.3. Polar pairs, separation, and suffering

It is apparent from the preceding paragraph that we are now beginning to be immersed in dualistic language when we speak of the doing and functioning of the “I”-entity or ego. For the purpose of efficient communication in the remainder of this chapter, we shall often use this dualistic mode of speaking. However, it should always remain clear that the ego, being nothing but a concept, is powerless to do anything. Everything that happens is still entirely the impersonal functioning of Consciousness. Nobody ever does anything because there is nobody to do it.

In each present moment, we can see that we are doing nothing ([see Section 22.2](#)), thus there can be no doer in the present moment. The ego is nothing but the identification with the thought that “I” have done something in the past, or “I” can do something in the future. Thus, it is inseparable from the concepts of past and future ([see Section 14.1](#)). That is why its desires and fears are always tied to the past or future.

Identification as the ego gives me the perception that “I” am separate from you, which sometimes makes you appear to be a threat to my survival. The threats seem real only because hidden in the ego is the knowledge that it itself is only a concept, and is therefore vulnerable to myriad forces outside itself. Intrinsic to ego identification is the fear of ego death even though death is a concept that is not understood by the ego (the mind cannot conceive of its own absence). Since fear of death is intrinsic to the ego, the body, which is the sentient object that is the basis of the ego, appears to be the ego’s enemy because it is vulnerable to many outside forces as well as to its imagined defects. The ego knows that the body must die so it lives in constant fear of this happening. At the same time, the ego glorifies the death of the body when it can imagine that somehow death will glorify itself. To some egos, nothing is more glorious than to die in battle.

Since the ego is nothing but a concept, other concepts can appear to be threats to it, including some concepts about the ego itself. Some of these conflict with the ego’s self-esteem, such as concepts of being wrong, weak, defective, unattractive, or guilty. The ego reacts to any of these threats by attacking, and thereby tends to see other seeming individuals as guilty, enemies, or victimizers. The ego always sees itself as victim, never as victimizer, and thus is

able to justify virtually any action in defense of itself. The ego finds it very easy to ally itself with other concepts because it finds strength in concepts. This is particularly true of ideological concepts, many of which are adopted by numerous other egos, thus allowing the ego to see numbers as strength.

The concept of "I" necessarily requires the concept of its polar opposite, the not-"I", or other, i.e., everything but the "I". Since "I" and not-"I" are a polar pair, the "I" sees everything as being divided into polar pairs. The concept of right necessarily requires the concept of wrong, good requires evil, God requires Satan, guilt requires innocence, light requires darkness, health requires illness, rich requires poor, knowledge requires ignorance, etc. All of these are merely concepts that are formed by drawing conceptual boundaries between the opposites in an inseparable pair of concepts. These boundaries are purely arbitrary, and can be moved as the occasion demands. For example, what appears to be right at one time and place will appear to be wrong at another, or what appears to be wealth in one place will appear to be poverty in another.

[Note: Many passages in the Bible can be interpreted as metaphors for nondual teachings. For example, Genesis 2:17 graphically describes the fatal consequences of dividing Consciousness into polar pairs:

"... but of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall die."]

Simultaneously with the "I"/not-"I" polar pair, and inseparable from it, arises the desire/fear polar pair. This is because the ego, thinking of itself as being separate, finds it impossible to feel whole, and, regarding itself as a doer, seeks something outside of itself in order to complete itself. This fact reveals the fallacy in any attempt by the ego to be without desire, such as when it adopts a spiritual path that stipulates the renunciation of desire. There are many forms of the desire/fear polarity. Among them are love/hate, attraction/repulsion, attachment/aversion, and approach/avoidance.

Since the ego is inseparable from fear/desire, it conceptualizes everything in terms of fear/desire. Its overpowering fear of weakness, loneliness, and death (much of the time unrelated to threats to the body) makes their polar opposites, namely power, relationships, and survival, its overpowering desires. It sees every boundary line between these opposites as a potential battle line.

The law of the ego is that only the fittest survive. It equates winning with surviving and losing with dying, whether academically, professionally, politically, socially, or economically. The stress generated by the struggle to win dominates life in the materialistic, individualistic world, where there is never enough time, money, or effort. Fear of losing is the basis of the struggle, but no matter how much effort is made, winning is never guaranteed, so instead of fear being relieved by the struggle, it is reinforced by it. Paradoxically, trying to abandon the struggle does not remove the fear either. There is no way to win this battle except by examining and understanding its basis, and seeing that there is no ego, nor any enemy.

All conflict and suffering are a result of the conceptual victim drawing conceptual boundaries and seeing the resulting split pairs as desirable/fearful, friend/foe, lovable/hateful,

acceptable/unacceptable, etc. Suffering must continue as long as wholeness appears to be split into opposing pairs. The only cure for all suffering is disidentification from the sense of doership. The world will always be seen as a fearful/desirable place until this occurs.

On p. 73 of *The Wisdom of Nisargadatta* (1992) by Robert Powell, Nisargadatta Maharaj says,

"Everybody sees the world through the idea he has of himself... If you imagine yourself as separate from the world, the world will appear as separate from you and you will experience desire and fear. I do not see the world as separate from me, and so there is nothing for me to desire, or fear."

11.4. The victim/victimizer polar pair

The concept of victimizer is the polar counterpart of the concept of victim. Where there is an image of the latter, there is necessarily an image of the former. The reason we suffer is not only because we identify as the helpless victim, but also because we perceive something as being our tormentor. The concept of victimizer comes from the idea of how things "should" be. Whenever something is in disagreement with this idea, then it must be "wrong", i.e., it is seen to be what is victimizing us. It is important to realize that it is identification as the victim that makes the victimizer seem real. All suffering comes from resisting the victimizer, which is as fictitious as the victim.

It is tempting to think that "I" am victimized by my spouse, by my boss, by my guru, by the person ahead of me in the checkout line, by my unfortunate birth, by my body, by my parents, by my teachers, by circumstances, by life, by the world, or by God. However, suffering is never caused by anything other than our own concepts. This is most clear in the situations when we can see that the victimizer is in our mind. For example, when "I" hate myself, condemn myself, hurt myself, am disgusted with myself, am disappointed with myself, torment myself, or torture myself, in all of these cases, there is an image in the mind of me as victimizer as well as another image of me as victim.

When we blame somebody outside of ourselves, we project the concept of victimizer onto somebody else. For example, when our parents were not the parents we wanted them to be (the way parents "should" be), we had another concept of how our parents were (a concept of them as victimizer), and then we blamed them for being like this concept. Whether they were actually like this concept is unlikely, and is also immaterial. The point is that we could not have suffered as victims if there had been no concept in our minds of them as victimizer also. From the viewpoint of the ego, there is nothing more frustrating than the absence of somebody or something to blame. That is why nonduality is so threatening to it.

What seems to be victimizing us is not independent of the mind, but is an image in the mind. Both victim and victimizer are nothing but images in our minds. It is essential to realize this in order to be free from suffering. Suffering is nothing but the concept of victimhood. Freedom requires disidentification from both sides of the polar pair, so disidentification requires that we clearly see that both the victim and victimizer are in our own minds.

Below are examples of some common attitudes that indicate that the person holding them is identified as victim. It is a valuable exercise to look for the conceptual victimizer in that same

person's mind as well.

"You can't beat the system."	"I'm mad as hell and I'm not going to take it any more."
"Don't get mad. Get even."	"The extremists are the problem."
"Big government is the problem."	"The liberals are the problem."
"The conservatives are the problem."	"Racism is the problem."
"The multiculturalists are the problem."	"I need you!"
"They are trying to turn the clock back!"	"You promised!"
"I can't live without you!"	"He done me wrong."
"How could you do that to me?"	"Don't start on that again!"
"No rest for the wicked."	"My past is catching up with me."
"What on earth made me say that?"	"What have I done to deserve this?"
"Why me?"	"Nobody understands me!"
"There's nothing I can do."	"I'm just no good."
"You have to get it while you can."	"It's kill or be killed."
"Do it to them before they do it to you."	"I'm just a slave to my passions."
"Poor me!"	"It's a jungle out there!"

The ego needs enemies in order to survive. An "enemy" can be anything that resists or opposes the ego, e.g., a competitor, an opponent, or an adversary. The ego gains strength from resisting and fighting enemies, and from recruiting allies. Witness the need for opponents and cheerleaders in sporting events, for competitors and friends in the workplace, and for enemies and allies in wars. The ego and the world of egos thrive on the clash between polar opposites. Without the concept of victimizer and the strength that it gives to the ego, the concept of victim could not survive. Disidentification from both is necessary for peace of mind.

It is easy to fall into the trap of blaming the ego for one's suffering. But, who is it that is blaming the ego for its suffering? Can there be two egos? The ego, being only a concept, does not and cannot do anything. Suffering occurs for one reason and one reason only, and that is because of the illusory sense of "I" as a separate individual. Without this sense there could be no helplessness, guilt, shame, pride, hatred, envy, or jealousy. However, suffering is not necessary or inevitable. Understanding how the mind functions, and enquiry into who it is that suffers, makes it clear that neither the victim nor the victimizer exists. Part 3 will bring more clarity to this practice.

No concept can reflect or describe the intrinsic wholeness of nature. For this reason, every concept that we use in this course is fundamentally inadequate to describe Reality---we can only point to It. All concepts that we use are merely pointers. The only way to know Reality is to see that you are Reality. That is why this course cannot teach you what you really are, but it can encourage you to find out what you really are, which means to be what you are. Essential to being what you are is to see what you are not. This means that you must see that you are not a body, not a mind, not a doer, not a thinker, not a decider, not an ego, not a self-image, not anything. In contrast to the impossibility of seeing what you are, it is possible to see what you are not, because anything that you think you are is merely a concept or image, so you can also see that you are not it. The reverse of identification is disidentification, and seeing what you are not is an essential part of disidentification.

One should not assume from the above that concepts are useless or unnecessary. This course consists entirely of concepts, and they are essential for functioning in the world. Conceptualizing by itself is not a source of problems—it is identification with concepts that

causes all problems. The sage uses concepts as a necessary part of living but does not identify with them (does not live in ignorance). In particular, there is no identification with the “I”-concept so there is no sage entity.

11.5. Sin, guilt, and shame--monstrosities of mind

(The heading of this section was adapted from Ramesh's 2000 book with a similar title, see [Appendix](#).) No concept causes more suffering than that of sin, and no emotions cause more suffering than those of guilt and shame. Everybody grows up with them because they are instilled by religion, government, society, and parents in order to coerce obedience. There are two types of sin: 1) the belief that it is possible to do something that is wrong or evil, and 2) the belief that it is possible to be somebody who is bad or worthless. Guilt is self-condemnation and despair for the former. Shame is self-hatred and disgust for the latter. [In Christianity, both guilt and shame stem from the concept of "original sin", the "sin" that Adam supposedly committed by disobeying God. See, e.g., Romans 5:12: *"Therefore as sin came into the world through one man and death through sin, and so death spread to all men because all men sinned"*. A more enlightened interpretation of original sin is that it means separation, which everybody is conditioned into by age two (see Sections [5.8](#) and [11.2](#)). The feeling of separation is the feeling of being defective and incomplete, see below. One could even say that original “sin” is the “sin” of being born into this world.]

Both guilt and shame require the concepts of victim and victimizer (however dimly perceived) that are discussed in the previous section. Thus, guilt/shame is based on the dual concepts of one entity that victimizes and another that is victimized. When a person is old enough to perceive himself/herself to be victim and another person to be victimizer, he/she blames the victimizer instead of looking directly at the guilt/shame in order to understand it. However, understanding it is the only way to become free from it. Blaming the victimizer is of no use because that only reinforces and perpetuates it. Furthermore, if the victim and victimizer have a personal relationship, blaming the victimizer results in the victimizer feeling guilt/shame, who, not understanding the feeling, sees the victim as victimizer, and then tries to offload the guilt/shame onto him/her, who in turn feels even more guilt/shame, and tries to offload it back again ... etc. This blaming/counterblaming interaction can continue in other relationships throughout a person's life, but both victim and victimizer are nothing but concepts, and to realize that is to become free from guilt/shame. This does not mean that they disappear; only that they are no longer binding.

Of guilt and shame, shame causes the greater suffering because it is so deep-seated and pervasive that it seems irremediable (see the important book by John Bradshaw, *Healing the Shame that Binds You* (1988)). Shame can be conditioned in a child in two ways. One way is by identification with shame-based parents (who themselves were conditioned into shame by their parents). Because the parents hate themselves for feeling defective, so does the child. A second way is for the child to perceive itself as being abused or abandoned by shame-based parents, whether sexually, physically, or emotionally.

Sexual abuse can be overt (e.g., coercive or seductive), or covert (e.g., suggestion, innuendo, or invasion of privacy). Physical abuse stems from the belief that a child's will must be broken in order to socialize it. ("Spare the rod and spoil the child" is justified in the Bible in several places, including Proverbs 13:24: *"He who spares the rod hates his son, but he who loves him is diligent to discipline him."*) Emotional abuse stems from the belief that emotions are sinful,

and must be controlled, especially anger and sexual urges (two of the "seven deadly sins", named in various biblical passages). But the child is driven crazy when the parents are allowed to exhibit anger, even violently, and the child is not. Furthermore, culture and society teach that to display emotions is to show weakness; thus they are derided and scorned.

Because the child views its parents as being God, it feels that it is being punished for being defective, a feeling that haunts the child as soon as it begins to feel separate. The feeling of being defective is even compounded by feeling defective for feeling defective. These feelings lead to a lifetime of trying to compensate for them by striving to be perfect. However, perfectionism is a losing game because failure comes inevitably and often. Fear of failure then leads to unrelenting anxiety, only fleetingly relieved by occasional feelings of accomplishment and success. However, every failure leads to self-anger/hatred for being weak, and to anger and rage towards those we think make us feel that way. But parents, culture, and society all demand that we suppress these feelings as being socially unacceptable. Furthermore, so painful are they that the mind goes still further and represses them, and thus prevents them from ever rising into awareness.

Repression then leads to depression, which is a feeling of hopelessness, helplessness, and weakness. This is occasionally relieved by anger, which is welcomed for its feeling of power and strength. Over the long term, depression can cause pronounced changes in brain chemistry. Then, regardless of later achievements and successes, deep down there is still a feeling of worthlessness, often for the remainder of one's life. Even treatment with drugs and/or talk therapy may not completely remove this feeling in spite of the relief that they can provide.

However, because repression/expression is a polar pair, what is repressed must be expressed. The mind does this in a way that conceals what is repressed. Some of the most common ways are the following:

1) Self-hatred is converted into hatred of others. The ego clings to its own versions of the Golden Rule to justify doing this: "Do to others what you think they have done to you"; or, "Do it to others before they can do it to you". Uncorrupted biblical justification is given in Deuteronomy 19:21: *"Your eye shall not pity; it shall be life for life, eye for eye, tooth for tooth, hand for hand, foot for foot"*; and in Deuteronomy 5:9: *"... for I the LORD your God am a jealous God, visiting the iniquity of the fathers upon the children to the third and fourth generation of those who hate me"*.

2) Self-hatred is converted into physical illness, thereby earning one's own grief and sadness plus those of others (see also [Section 24.3](#)); 3) it is converted into self-righteousness through religiosity, patriotism, moralizing, or judgmentalism; 4) it is covered up with "goodness" or "niceness" by pretending to be "good" or "nice"; 5) it is projected onto others by seeing them as defective and therefore requiring correction.

Sin of any type is impossible because there is no doer to commit sin, and no "I" to be sinful. The concepts of sin, doership, responsibility, and "I" go hand in hand and reinforce each other. Consequently, complete relief from sin, guilt, and shame is possible only through complete disidentification from them (see Chapters [20](#), [21](#), [22](#), [23](#), [24](#)).

Worldly love is dualistic love (see [Chapter 16](#)). Therefore, many cases of worldly love, especially romantic and married love, are heavily infected with a strong feeling of guilt. That is

what gives the “love” its anguish and torment, and what results in a repeating cycle of failure, guilt, blame, and sometimes “forgiveness”. But this “forgiveness” is never true. If it were, the cycle would end immediately because true forgiveness is seeing that there is no victimizer and no victim, and there never has been (see Chapters [20](#), [21](#), [22,24](#)).

11.6. The thinking mind and the working mind

In order to clarify the differences in the functioning of the mind before and after awakening, Ramesh distinguishes between the thinking mind and the working mind. The thinking mind is the part of the mind that suffers. It is the personal sense of doership and responsibility that results from identification with the “I”-concept (see [Section 11.2](#)). Its primary goal is to survive by conceptualizing the future as an extension of the past. For this, it clings to the concepts of sin and guilt, it worries about the future and wishes things were different, and it resists the impersonal functioning of Totality. It judges all other conceptual objects according to whether they will enhance its own sense of completeness and worth or whether they are threats to it. Threats to the ego are seen as objects of hatred, guilt, fear, envy, and jealousy, while completion objects are seen as objects of desire, worship, and adulation. The judging that is the source of all of these emotions is a result of identification with the “I”-concept. When disidentification occurs, judging and its emotions disappear. Prior to disidentification, the thinking mind and its preoccupations with past and future can easily dominate the mind and prevent it from accomplishing its tasks, or at least obstruct it or alter the natural priorities of the tasks that the mind must do. (In his 2000 book, *As It Is*, Tony Parsons refers to the thinking mind as abstract thought. This is thought that maintains the illusion of separation by living in the past or the future, neither of which exists, as is shown in [Section 14.1](#).)

The part of the mind that is task-oriented is the working mind. (In *As It Is*, Tony Parsons refers to the working mind as natural or creative thought.) This part of the mind, which results from identification with the body-mind organism (see [Section 11.2](#)), still continues even after the disappearance of the sense of personal doership and responsibility because it is necessary for the continued functioning of the organism. Everybody experiences the working mind whenever the “I” is not present. For example, a common experience is to lose track of time while being “lost” in one's work.

Whereas the ego strives to survive, for the working mind, survival happens naturally. The thoughts and emotions that are necessary for its functioning are acted upon, and then they disappear so they do not persist. There is no resisting, judging, fearing, worrying, or doubting, all of which would interfere with its functioning. The working mind uses whatever concepts and past experience are necessary for its functioning, but in the absence of the thinking mind, there is no identification with them, so no pseudo-entities are formed.

Prior to awakening, it seems as though the ego is the owner of most thoughts, leading to the experiences of “my” desire, “my” aversion, “my” longing, “my” work, “my” body, “my” mind, etc. Thus, the thinking mind, or ego, is usually thoroughly identified (at the third level) with its thoughts and self-images, resulting in the emotions of fear, desire, envy, frustration, guilt, anxiety, indecision, aversion, and attachment. After disidentification and awakening, the reactions to circumstances and the persistence of conditioning may result in some of the same thoughts and emotions occurring to the working mind, but they are never identified with. They are never judged, rejected, nurtured, resisted, or clung to; therefore they disappear

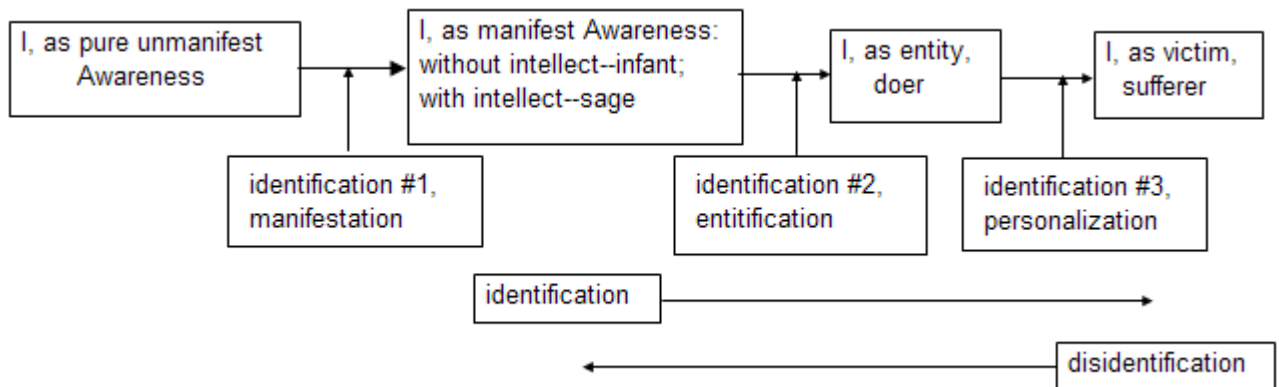
immediately.

It must be realized that both the thinking mind and the working mind are instruments used in the functioning of Totality. There is nothing wrong or right, or good or bad, about either of them. They both just appear, and eventually they both just disappear. Initially, Consciousness functions through both of them, harmoniously through the working mind, and disharmoniously through the thinking mind. After the thinking mind disappears, Consciousness continues to function through the working mind. Since separation and doership are not concepts of the working mind, its functioning is always in harmonious accord with the Whole.

11.7. Summing up . . .

Suffering is entirely illusory, being a consequence of identification as an “I”-entity, and as the victim in a victim/victimizer pair. This does not mean that suffering does not seem real to the “one” who suffers. The only cure for suffering is disidentification, after which it is seen there never was any victim that could have suffered. Because Awareness is our true nature, it is easy to see that the more aware we are of our identifications, the less identification there is. Thus, awareness is the key to disidentification and freedom, and is the means to the realization that pure Awareness is what we are.

The following diagram illustrates the concepts discussed in this chapter. Disidentification is the process of understanding, becoming aware, inquiring into Reality, and direct seeing. These will be discussed more fully in Part 3.



Chapter 12. Religion, belief, and nonduality,

12.1. The difference between religion and nonduality

Because suffering is often grounded in deep-seated religious beliefs ([Section 11.5](#)), such suffering will not end until these beliefs are deeply questioned. However, because there are no doers (see [Section 11.2](#)), nobody has any choice about what he/she believes, or about whether or not to question them. If questioning is supposed to happen, it will. If not, it won't. Nevertheless, in this chapter (and for much of the course), for the purpose of ease in communication, we shall use the active (doer) mode of speaking instead of the more accurate passive (nondoer) mode.

This is a course in seeing and understanding, not in belief. In nonduality, Reality transcends all concepts, so Reality cannot be conceptualized. Nonduality as a teaching contains many concepts, but all of them are meant to be pointers to Reality that can be verified by experience. To mistakenly believe the concepts as Reality Itself would actually prevent one from realizing Reality. In the end, the only validity of any concepts is in their usefulness in bringing about awakening and the end of suffering.

On p. 109 of *The Wisdom of Nisargadatta* (1992) by Robert Powell, Nisargadatta says:

"By following any religion, cult or creed, one becomes inevitably conditioned, because one is obliged to conform and accept its disciplines, both physical and mental. One may get a little peace for some time, but such a peace will not last long. In your true nature, you are the knower of concepts and therefore prior to them."

On p. 65 of the same book, Nisargadatta says:

"Those who know only scriptures know nothing. To know is to *be*."

In the meditation for August 25 in *A Net of Jewels* (1996), Ramesh says,

"Belief, any belief, is based on the sense of insecurity. Only when all belief is given up are you free to know yourself. In self discovery what you find is the Truth - that Truth which is total, self-evident and which needs no outside support or justification."

There is an enormous difference between the teachings of nonduality and those of religion. There is no theology in the purest forms of nonduality, whereas theology is the basis of all religion. By theology, I mean a dualistic belief system which contains critical concepts that one is asked to believe as Truth but which cannot be verified within the individual's own experience. The teaching of nonduality differs from religion by heavily relying on practices (see [Chapters 21, 22, 23, 24, 25](#)) that are aimed at revealing your true nature in a way that mere concepts cannot. Without the practices, nonduality is nothing but metaphysics.

The world's scriptures can be interpreted in many different ways. At one extreme are the fundamentalist interpretations, which assume that the words are literal truth. These interpretations are necessarily dualistic because all words taken literally are dualistic (see [Chapter 11](#)), and they always conceive of God and humans as separate beings. Examples of

scriptures that are usually interpreted literally are the Hebrew and Christian Bibles. At the other extreme are the nondualistic interpretations, which regard the words as nothing but pointers to Reality. An example of a scripture that is most naturally interpreted nondualistically is the *Ashtavakra Gita*. (See, e.g., a highly regarded translation without commentary called *The Heart of Awareness* (1990), by Thomas Byrom, available at <http://www.swcp.com/~robicks/gitaintro.htm>. A translation with commentary, entitled *Duet of One* (1989), was authored by Ramesh Balsekar, see [Appendix](#)). A scripture that lends itself in some parts to a dualistic interpretation and in other parts to a nondualistic interpretation is the *Bhagavad Gita* (<http://www.bhagavad-gita.us/introduction-to-bhagavad-gita.htm>).

12.2. Religion as the belief in god

In religion, mankind creates gods in its own images, and each religion then justifies its actions by claiming it speaks for its god. The more vengeful and punitive is the god, the more vengeful and punitive are the people who believe in it. Thus, many adherents to Christianity are admiringly described as god-fearing, not god-loving. Furthermore, any belief in god induces guilt, expiation of which often takes the form of trying to induce guilt in others. It is no accident that the most peaceful religions are the ones, like Buddhism, that have no concept of god.

Religions often preach love without knowing what Love is (see Chapters [16](#) and [25](#)). Many religious fundamentalists interpret their god's love for them to be inseparable from its hatred for others. The U.S. political movement known as the Christian religious right is one such group. Its primary spokesmen are Pat Robertson, Jerry Falwell, and Franklin Graham. (For a list of some books about it, see <http://slisweb.lis.wisc.edu/~jcherney/bookbib.html>.)

Fundamentalists often create enemies on whom to displace their feelings of self-hatred, self-fear, and self-anger (see [Section 11.5](#)). Their (unrecognized) self-hatred can be so unbearable that they try to compensate by believing that they are god's favored few, and, in the name of this god, endeavor to eliminate a competing religion by trying to convert, demonize, or kill its adherents. Their fear of another religion or teaching can be even greater than their fear of death.

Following are a few examples of violent clashes between competing religious beliefs that resulted in executions, massacres, and wars.

- In less than a century after Mohammed (570-633) died, Muslims, in their missionary zeal to convert the "infidels", conquered Palestine, Syria, Mesopotamia, Egypt, North Africa, and the South of Spain. In the eighth and ninth centuries they conquered Persia, Afghanistan, and a large part of India, and in the twelfth century they had already become the absolute masters of all Western Asia, Spain and North Africa, and Sicily.
- Between 1095 and 1270, with the blessing of the popes, and with the intention of protecting the Holy Land and keeping the pilgrim routes open to Jerusalem, Christians launched several crusades, mostly from France, slaughtering hundreds of thousands of Muslims.
- In 1478, Pope Sixtus IV initiated the Spanish Inquisition in order to purify Christian communities of all Jews and Muslims, even those who had converted to Christianity.

This quickly became an instrument to expand state power and to fill its treasury with the estates of those found guilty of being less than fully Christian.

- In 1517, Martin Luther (1483-1546) in Wittenberg, Germany, repulsed by papal authority and its practice of buying and selling indulgences (the remission of religious penalties for sinning, including freeing the soul from purgatory) rebelled by posting his "Ninety-five Theses" on the door of the Wittenberg Castle church. Simultaneously, he called upon lay people to take responsibility for their own salvation and to renounce Roman authority.
- In Switzerland in 1523-1524, peasants in the Zurich district, using the argument that ruling authority should be based on the Scriptures, revolted against the town council, claiming that they should not be required to pay tithes on their produce because there was no biblical justification for doing so. Townsmen, with their own interpretation of the Bible, rejected the peasants' demand, noting that the Bible did not forbid such payments, and said that the peasants should make them out of "love". This so provoked the peasants that the revolt grew to hundreds of thousands in several countries. In 1525, territorial princes and large cities reacted by raising large armies that defeated and destroyed the revolt.
- In 1535, in Münster, Germany, believing that protection of "true" religion demanded harsh measures, Protestants, allied with the Catholic Church, persecuted and executed thousands of Anabaptists (a sect that believed only adults should be baptized, founded in 1525 by Konrad Grebel, Balthasar Hubmaier, and others, and from whom the Baptists, Amish, Mennonites, Quakers, and Hutterites of today are descended).
- Between 1550 and 1650, about 100,000 people in Europe, mostly women, were persecuted for alleged witchcraft, and about 60,000 were executed. Under torture, or the threat of torture, many confessions were obtained, but no proof that an accused person ever attended a Devil-worshipping "black" Sabbath was ever produced in any witch trial.
- From 1618 to 1648, the Thirty Years' War was fought between Protestant and Catholic states in the Holy Roman Empire (comprised largely of present-day Germany, Austria, and the Czech Republic) with considerable opportunistic meddling by surrounding countries. The war ended with the Peace of Westphalia (1648), which required that all subjects follow their rulers' faiths.
- Many Christians willingly joined the Nazis in trying to exterminate the Jews during World War II. Islamic fundamentalists have declared holy war on "infidel" nations, particularly on the powerful ones. Muslims, Jews, and Christians continue to kill each other today.
- On September 11, 2001, perceiving the U.S. to be anti-Islamic because of its support for the presumed anti-Islamic policies of Israel and other countries, Osama Bin Laden, an Islamic extremist headquartered in Afghanistan, directed coordinated suicide attacks by fanatical Muslims on the World Trade Center in New York City and on the Pentagon near Washington, D.C., killing nearly 3000 people. These attacks inspired the following exchange on September 13, 2001 between Jerry Falwell and Pat Robertson (see above) on Pat Robertson's cable television program, "The 700 Club" (as reported by various websites):

Falwell: "What we saw on Tuesday, as terrible as it is, could be miniscule if, in fact, God continues to lift the curtain and allow the enemies of America to give us probably what we deserve."

Robertson: "Well, Jerry, that's my feeling. I think we've just seen the antechamber to terror, we haven't begun to see what they can do to the major population."

Falwell: "The ACLU has got to take a lot of blame for this. And I know I'll hear from them for this, but throwing God...successfully with the help of the federal court system...throwing God out of the public square, out of the schools, the abortionists have got to bear some burden for this because God will not be mocked and when we destroy 40 million little innocent babies, we make God mad...I really believe that the pagans and the abortionists and the feminists and the gays and the lesbians who are actively trying to make that an alternative lifestyle, the ACLU, People for the American Way, all of them who try to secularize America...I point the thing in their face and say you helped this happen."

Robertson: "I totally concur, and the problem is we've adopted that agenda at the highest levels of our government, and so we're responsible as a free society for what the top people do, and the top people, of course, is the court system."

Falwell: "Pat, did you notice yesterday that the ACLU and all the Christ-haters, the People for the American Way, NOW, etc., were totally disregarded by the Democrats and the Republicans in both houses of Congress, as they went out on the steps and called out to God in prayer and sang 'God bless America' and said, let the ACLU be hanged. In other words, when the nation is on its knees, the only normal and natural and spiritual thing to do is what we ought to be doing all the time, calling on God."

12.3. Nonduality in the Bible

Nevertheless, a few passages from the Bible can be interpreted nondualistically. For example, consider some often-quoted passages from *Exodus 3* (all Biblical passages were taken from the Revised Standard Version at <http://etext.virginia.edu/rsv.browse.html>):

13: Then Moses said to God, "If I come to the people of Israel and say to them, 'The God of your fathers has sent me to you,' and they ask me, 'What is his name?' what shall I say to them?"

14: God said to Moses, "I AM WHO I AM." And he said, "Say this to the people of Israel, 'I AM has sent me to you.'"

15: God also said to Moses, "Say this to the people of Israel, 'The LORD, the God of your fathers, the God of Abraham, the God of Isaac, and the God of Jacob, has sent me to you': this is my name for ever, and thus I am to be remembered throughout all generations.

Nondualistically, the name of God is "I AM". This is easily identified with what we call pure Awareness, I Am, or the Absolute (see [Figure 1, Section 10.1](#)).

Now, some familiar passages from *John 14*:

6: Jesus said to him, "I am the way, and the truth, and the life; no one comes to the Father, but by me.

7: If you had known me, you would have known my Father also; henceforth you know him and have seen him."

Nondualistically, Pure Awareness, (I Am, [Figure 1, Section 10.1](#)), is the means and the end (*the way and the truth*). If you know your true nature as pure Awareness, you also know the Absolute (unmanifest Consciousness, *the Father*).

8: Philip said to him, "Lord, show us the Father, and we shall be satisfied."

9: Jesus said to him, "Have I been with you so long, and yet you do not know me, Philip? He who has seen me has seen the Father; how can you say, 'Show us the Father'?"

10: Do you not believe that I am in the Father and the Father in me? The words that I say to you I do not speak on my own authority; but the Father who dwells in me does his works.

Philip wants Jesus to show him the Absolute, but Jesus tells him again that only by knowing his own true nature (I Am) can he know the Absolute.

16: And I will pray the Father, and he will give you another Counselor, to be with you for ever,

17: even the Spirit of truth, whom the world cannot receive, because it neither sees him nor knows him; you know him, for he dwells with you, and will be in you.

The other *Counselor, or Holy Spirit*, is spiritual intuition (see [Figure 1, Section 10.1](#)) which few know (it cannot be seen with the world's eyes), but can be known by all who want to.

26: But the Counselor, the Holy Spirit, whom the Father will send in my name, he will teach you all things, and bring to your remembrance all that I have said to you.

27: Peace I leave with you; my peace I give to you; not as the world gives do I give to you. Let not your hearts be troubled, neither let them be afraid.

Your own spiritual intuition will bring you to Reality and peace.

Now, three passages from *John 8*:

57: The Jews then said to him, "You are not yet fifty years old, and have you seen Abraham?"

58: Jesus said to them, "Truly, truly, I say to you, before Abraham was, I am."

59: So they took up stones to throw at him; but Jesus hid himself, and went out of the temple.

Jesus tells them that his true identity has always been I Am (as it is for everyone). (This assertion incited an all-too common reaction among those who fear having their beliefs challenged.)

Jesus' identification with pure Consciousness (again with the reaction of those who were afraid to question what they had been taught) is reinforced in the following passages from *John 10*:

30: I and the Father are one."

31: The Jews took up stones again to stone him.

32: Jesus answered them, "I have shown you many good works from the Father; for which of these do you stone me?"

33: The Jews answered him, "It is not for a good work that we stone you but for blasphemy; because you, being a man, make yourself God."

34: Jesus answered them, "Is it not written in your law, 'I said, you are gods'?"

35: If he called them gods to whom the word of God came (and scripture cannot be broken),

36: do you say of him whom the Father consecrated and sent into the world, 'You are blaspheming,' because I said, 'I am the Son of God'?"

37: If I am not doing the works of my Father, then do not believe me;

38: but if I do them, even though you do not believe me, believe the works, that you may know and understand that the Father is in me and I am in the Father."

39: Again they tried to arrest him, but he escaped from their hands.

12.4. Religion as the belief in objective reality

An even more universally held religion than the belief in god is the belief in objective reality. This belief can be just as staunchly and vociferously defended as the belief in any god. The religion of objective reality contains a theology that is every bit as dualistic and as unverifiable as any other religion. It is dualistic, because it decrees the presence of objects whose existences are independent of the mind. It is unverifiable since all objects, whether perceived or not, are nothing but concepts in the mind (see [Section 9.2](#)). In fact, the only nonconceptual, verifiable experience that you can have is that you are aware (see Sections [1.4](#) and [9.3](#)). Because the belief in the independent existence of any object, whether it is god, nature, or human, always implies a threat to the security of the ego and the body-mind, all religiously held dualistic beliefs, including the religion of objective reality, must lead to suffering.

12.5. Buddhism—religion, or not?

Buddhism is generally viewed as one of the world's great religions. Because, like Jesus, the Buddha left no writings, what he actually taught is open to speculation. However, a generally accepted account is given in the following three paragraphs taken from <http://www.buddhanet.net/e-learning/buddhistworld/buddha.htm>:

Siddhartha Gautama, known as the Buddha, was born in the sixth century BC in what is now modern Nepal. His father, Suddhodana, was the ruler of the Sakya people and Siddhartha grew up living the extravagant life of a young prince. According to custom, he married at the young age of sixteen to a girl named Yasodhara. His father had ordered that he live a life of total seclusion, but one day Siddhartha ventured out into the world and was confronted with the reality of the inevitable suffering of life. The next day, at the age of twenty-nine, he left his kingdom and newborn son to lead an ascetic life and determine a way to relieve universal suffering.

For six years, Siddhartha submitted himself to rigorous ascetic practices, studying and following different methods of meditation with various religious teachers. But he was never fully satisfied. One day, however, he was offered a bowl of rice from a young girl and he accepted it. In that moment, he realized that physical austerities were not the means to achieve liberation. From then on, he encouraged people to follow a path of balance rather than extremism. He called this The Middle Way.

That night Siddhartha sat under the Bodhi tree, and meditated until dawn. He purified his mind of all defilements and attained enlightenment at the age of thirty-five, thus earning the title Buddha, or “Enlightened One”. For the remainder of his eighty years, the Buddha preached the Dharma [a set of doctrines and a set of rules] in an effort to help other sentient beings reach enlightenment.

According to *What the Buddha Taught* (1974) by Walpola Rahula, faith and belief played no part in the Buddha’s original teachings. In that view, we would consider Buddhism to be a teaching, not a religion (see [Section 1.5](#)). Rahula says on p. 8 of his book,

“Almost all religions are built on faith—rather ‘blind’ faith it would seem. But in Buddhism emphasis is laid on ‘seeing’, knowing, understanding, and not on faith, or belief ... However you put it, faith or belief as understood by most religions has little to do with Buddhism. The question of belief arises when there is no seeing—seeing in every sense of the word. The moment you see, the question of belief disappears.”

On p. 9, he says,

“It is always a question of knowing and seeing, and not that of believing. The teaching of the Buddha is ... inviting you to ‘come and see’, but not to come and believe.”

The heart of the Buddha’s teaching (Rahula, pp. 16-18) consisted of the “Four Noble Truths”, the first of which is “*Dukkha*”. The Pali word, *dukkha* (often translated as suffering) means imperfection of any kind, such as pain and misery, but also includes loss of joy, happiness, satisfaction, pleasure, etc. (The other four Noble Truths are the Origin of *Dukkha*, the Cessation of *Dukkha*, and the Path Leading to the Cessation of *Dukkha*).

On p. 51, Rahula says,

“Buddhism stands unique in the history of human thought in denying the existence of such a Soul, self, or Atman [what we have called the “I”-entity]. According to the teaching of the Buddha, the idea of self is an imaginary, false belief, which has no corresponding reality, and it produces harmful thoughts of ‘me’ and ‘mine’, selfish desire, craving, attachment, hate, ill-will, conceit, pride, egoism, and other defilements, impurities and problems. It is the source of all the troubles in the world from personal conflicts to wars between nations. In short, to this false view can be traced all the evil in the world.”

In the terms of this course, *dukkha* simply means identification with the I-concept (see Section [9.3](#) and [Chapter 11](#)).

Rahula's statements above are consistent with this course's teaching of nonduality. However, on p. 55, he says,

“It is therefore curious that recently there should have been a vain attempt by a few scholars to smuggle the idea of self into the teaching of the Buddha, quite contrary to the spirit of Buddhism. These scholars respect, admire, and venerate the Buddha and his teaching. They look up to Buddhism. But they cannot imagine that the Buddha, whom they consider the most clear and profound thinker, could have denied the existence of an Atman or self which they need so much.”

Thus, the purest of teachings are often corrupted by unenlightened teachers. Buddhism became a religion when its teachings were corrupted by the introduction of the “I”-entity. In contrast to Rahula's purist description, today's actual teaching of Buddhism includes a great deal of religious dogma. For example, in *The Story Of Buddhism: A Concise Guide To Its History And Teachings* (2001), by Donald S. Lopez, Jr., (from the excerpt at <http://www.pbs.org/wnet/religionandethics/week445/lopez.html#right>),

“The Buddha taught that all beings in the universe are subject to rebirth without beginning. All beings in the universe were present, somewhere in the universe, when he taught the path to freedom in India. Some who had the good fortune to hear his teachings and put them into practice were able to follow the path and free themselves from rebirth. Others, less fortunate, have continued to be reborn again and again.”

“ ... Thus, the Buddha divided what he taught into, perhaps, a set of doctrines and a set of rules [collectively known as the Dharma] ... What is encompassed by this Dharma is indeed vast. It can include chanting the Buddha's name; circumambulating his relics; prostrating before his image; copying, reading, or reciting his words; painting his image; taking and maintaining vows; offering food and robes to monks and nuns; writing arcane commentaries; sitting in meditation; exorcising demons; visualizing oneself as the Buddha; placing flowers before a book; burning oneself alive.”

Clearly, Buddhism in this form has little to do with nonduality. Because of its emphasis on doctrine and rules instead of understanding, seeing, and knowing, Buddhism as religion tends to reinforce the imaginary “I”-entity and its sense of doership, and therefore it is unlikely to eliminate individual suffering.

12.6. Vipassana

Vipassana (vi-**pah**-sa-na, known in the West as mindfulness-insight meditation) is a form of Buddhist meditation that is attractive to westerners because of the absence of religious doctrine in it. “Vipassana” means to see things as they really are, and thus is consistent with the aims of this course. The following description of Vipassana can be

found at <http://www.angelfire.com/electronic/awakening101/insight.html>:

a). Mindfulness: Unlike concentrative meditation, which focuses awareness on a specific object, mindfulness is the practice of open, noninterfering alertness or pure, fully present attention. The meditator gives alert attention to experience without conceptualizing, judging, or controlling experience, allowing sensations, feelings, and thoughts to arise and disappear without being followed or resisted in any way. Such noninterfering attention allows the meditator to be fully present in the experience of the moment.

b). Insight: Mindfulness ripens into insight, which is the clear seeing that the mind, and experience generally, is “unsatisfactory,” momentary, and devoid of self or substance. Vipassana gradually dissolves the sense of being a permanent self and reveals, with ever-finer discrimination, that consciousness is an open dynamic field of spontaneously arising experiences. Insight meditation progresses through several stages leading ultimately to the experience of pure dynamic emptiness, or Nirvana [absence of suffering].

This description is similar to our description of self-enquiry, i.e., enquiry into the contents of Awareness (see [Section 22.2](#)), but it stops short of Self-enquiry, i.e., enquiry into Awareness itself (see [Section 22.3](#)).

12.7. Zen

Centuries after Buddhism began in India, it spread through the trade routes into China, where it was reshaped by contact with Confucianism and Taoism in Chinese culture. Many schools of Buddhism were then formed. In the 6th century A.D., the “Intuitive School”, called Ch’an (derived from the Buddhist meditation called dhyana) was introduced. From China, in the eighth century, Ch’an spread to Japan where it is called Zen, the Japanese pronunciation for Ch’an.

(The following three paragraphs are extracts from p. 36-38 of an article by Norman Fischer entitled *Nothing Holy*, in *Shambala Sun*, March 2004).

Zen is a pithy, stripped-down, determined, uncompromising, cut-to-the-chase, meditation-based Buddhism that takes no interest in doctrinal refinements. Not relying on scripture, doctrine, or ritual, Zen is verified by personal experience, and is passed on from master to disciple, hand-to-hand, ineffably, through hard, intimate training.

Although Zen created controversy at first in all of the countries it spread to, eventually it became by far the most successful school of Buddhism in China, Korea, Japan, and Viet Nam. By the mid-1980s, the Zen traditions of all these countries had been transmitted to America.

Although Zen eventually developed traditions of study and ritual, its emphasis on personal experience has always made it a practice-oriented tradition. The practice is meditation, or sitting Zen (Zazen). Zazen is an

intensely simple practice that is generally taught without steps, stages, or frills. The master teaches sitting in good, upright posture, paying full attention to breathing in your belly until you are fully alert and present. This sense of being present, with illumination and intensity, is the essence of zazen.

We see that the aims of Zen are similar to the aims of Vipassana, except that Zen emphasizes the illumination (satori) resulting from meditation, while Vipassana emphasizes the insight. In this sense, Zen is very similar to Self-enquiry as described in [Section 22.3](#), while Vipassana is similar to self-enquiry as described in [Section 22.2](#).

12.8. Nondual teachings

In nondualistic teachings, we can distinguish between two types of concepts, those that negate what is false, and those that assert what is true. The former always points away from what is false, while the latter attempts to point towards what is assumed to be true. Concepts that assert what is true can be misleading pointers. For example, to assert that Consciousness is infinite implies that 1) Consciousness can be described in conceptual terms, and that 2) Consciousness has no limits. Neither of these concepts applies to Consciousness, which is beyond all concepts. On the other hand, concepts that negate what is false can be useful pointers. For example, the statement that Consciousness is not a concept, entity, or object clearly means that Consciousness cannot be described in conceptual terms. A very useful negative pointer is the statement that there are no individuals.

Because concepts are to be used only as pointers, it is clear that two different conceptual systems may both be effective pointers to Reality. This should not worry one who realizes the purpose of concepts. Which conceptual system one accepts will depend on how effectively it points to Reality in the intuitive eyes of the student. That is why different conceptual systems will usually appeal to different individuals. Clear examples of two perhaps equally effective conceptual systems are Ramesh's teaching, which emphasizes deep understanding of the absence of the doer, compared with Ramana Maharshi's teaching, which emphasizes enquiry into the I-entity in order to discover its absence. Which one is chosen depends on the personality characteristics of the individual. (This course is a composite of both of these teachings.) Vipassana and Zen also are systems of pointers to nondual experience.

Because the awakened teacher is not an individual but a body-mind organism through which Consciousness functions spontaneously and impersonally, from the point of view of the teacher (i.e., Consciousness), there is no personal sense of obligation or responsibility (although there will often be from the disciple's point of view), so there is no concern about whether a specific person will accept the teaching. Because a conceptual system of pointers to Reality can be effective only if it is understood and accepted by the disciple, as experience is gained by the teaching body-mind organism, the teaching will usually naturally become simpler and more focused. Somewhat ironically, the simpler and more focused it becomes, the more some people will be driven away from it, and the more others will be drawn towards it.

In addition to the fact that spiritual beliefs cannot be true, no mere conceptual system can ever satisfy the yearning for wholeness, which is the compulsion behind all spiritual seeking. Only clear seeing can satisfy this, and in the end, only clear seeing can lead to the realization that

the individual does not exist. Because the intuition is constantly pulling us towards this realization, any practice based only on mentation rather than on seeing must strive to ignore this pulling. Furthermore, any belief system is constantly being challenged by competing belief systems. The result is that any belief system, in order to be sustained, requires constant effort at defending it, reinforcing it, and shoring it up. This effort invariably strengthens the sense of separation that the belief system is supposed to dissolve.

Chapter 13. Some useful metaphors

In discussing the metaphysics of the manifestation, it is very helpful to our understanding to use analogies taken from every day life. This is because the Source of the manifestation cannot be described in conceptual terms. It can only be pointed to, and analogies are useful pointers.

13.1 The dream

We are all familiar with the basic characteristics of our sleeping dreams. Prior to the beginning of the dream, there is deep sleep with its absence of awareness. The dream then bursts forth in full flower, with people, landscapes, buildings, airplanes; an entire world is created in an instant. During the course of the dream, which may last only a few seconds or minutes, people may appear and vanish or die, buildings may arise and crumble or burn, and oceans may form and reform or disappear. Dramas of every imaginable type may play out, including those with beauty, love, murder, hatred, terror, and lust. However, every dream invariably has one principal figure, that of some representation of the body-mind. The form of this representation may be different in every respect from the waking body-mind, but, on awakening, it is immediately clear which figure represented the body-mind and which ones did not.

The manifestation, or waking dream, is similar in many respects to the sleeping dream. Since pure objectivity cannot exist without pure Subjectivity, the universe cannot exist without sentience to observe it, just as the sleeping dream cannot appear without containing within it some representation of the mind-body to observe it. When the universe appears, it appears in its present entirety, without the need for eons of evolution prior to the appearance of sentience. Indeed, it cannot even appear without the sentient objects that are part of it. It is illusory in the sense that awakening (enlightenment) shows that it is not real, but is merely a reflection or shadow of the only Reality, which is Awareness. It is an epiphenomenon of Awareness, is totally dependent on it, and has no separate existence.

The sage views the world as a lucid dreamer views his or her dream. Both see that the dream is not real, are disidentified from it, and just witness it. The difference is that the sage witnesses from pure impersonal Awareness while the lucid dreamer still thinks of him/her self as the dreamer.

In the waking dream as in the sleeping dream, all apparently separate individuals are merely dream figures, without any volition or free will of their own. A dream figure simply is being dreamed, and lacks entirely any independent reality. We usually think of ourselves as being the dreamer of the sleeping dream, but this is incorrect. There is no dreamer of either the sleeping dream or the waking dream. Both the waking dream and the sleeping dream are mere appearances within Awareness. Because of this, it is misleading to think of Awareness as the

dreamer since Awareness is not an entity or object. When the individual regards him/her self to be real, it is a case of mistaken identity. The true identity (Awareness) becomes apparent when awakening occurs, which is simply the disappearance of the dream. At that time, it becomes obvious that the dream was never real, the only reality having always been only Awareness.

13.2 The movie

In some ways, the movie metaphor strikes more deeply at the illusoriness of the manifestation, and therefore may be better than the dream metaphor at producing the shock necessary to induce awakening.

We as individuals are nothing but the figures on a movie screen. We have no more reality, independence, or volition than the images projected onto the screen. Everything we seemingly think, feel, or do is actually recorded on the film through which the Light of Awareness shines and projects the images onto screen of Awareness. The absurdity of our situation is made clear at the thought that a mere image on a screen can strive for success, yearn for fulfillment, or seek for its source! Yet, all this seems to happen, not because the images are doing it, but because it is all recorded on the film! The film is the analog of Plato's or Goswami's transcendental realm ([Section 7.1](#)) or Bohm's holomovement ([Section 8.1](#)) (both of which are unverifiable concepts), and the light and the screen are the analogs of our true nature, which is pure Awareness. The light and the screen are completely unaffected by the film and the images. The images appear from nowhere, do their dance, and disappear back into nowhere, leaving no trace. (The viewer, who is not only aware but who also reacts to the images on the screen, is analogous to the individual mind.)

13.3. The puppet and the robot

This metaphor is similar to that of the movie. The body-mind organism is nothing but a puppet that moves according to the way its strings are pulled (e.g., by thoughts and impulses from the transcendental realm) and according to its mechanical construction (its conditioning). A more contemporary version would be the robot which performs a task according to instructions that are fed to it and according to its programming. Neither the puppet nor the robot can initiate any thoughts or actions of its own. There is no need to be depressed by this because you are not the body-mind organism; you are Awareness of the body-mind organism.

13.4. The shadow

This metaphor is similar to that of the puppet. The object casts a shadow, but the shadow is nothing but a poor facsimile of the object. It can be nothing else. As individuals, we are like shadows of Awareness, which is our true nature.

3.5. The ocean

An extremely useful metaphor to help us picture the relationship between phenomenality (pure objectivity) and Noumenality (pure Subjectivity) is that of the waves on the surface of the ocean. The waves (phenomenon) cannot exist without the ocean (Noumenon). The ocean in its depths is quiet, peaceful and undisturbed. Waves, storms, and foaming surf arise on the surface without disturbing the depths. Likewise, Noumenality is totally undisturbed by the

frenzied and meaningless activity of phenomenality. Each wave consists of a crest and a trough, and one cannot appear without the other, just as all of the inseparable opposites of phenomenality must appear together. When the ocean identifies with a wave and the wave thinks of itself as being separate from the other waves and from the ocean itself, the illusory individual appears. This is ignorance. When identification ends and awakening occurs, it is clear that there is only the ocean (Awareness), there has always been only the ocean, and the ocean is You.

13.6. The thorns

If a thorn enters the foot (if the concept of the individual “I” enters the mind), another thorn (concept) can be used to remove it. The thorn must be pointed and sharp and it must be deftly used in order to be effective. A dull thorn aimed at the wrong spot will only mutilate the foot. A thorn that has been softened so that it will not hurt will be ineffective. A collection of a large number of thorns will only confuse and distract, especially if the attention is on collecting thorns rather than using the best one to remove the one imbedded in the foot. The thorns themselves are not Reality, so after the first thorn is removed, both thorns are thrown away. We cannot describe Reality by using concepts, but we can use concepts to remove false concepts and to point to Reality. When Reality is revealed, all concepts become irrelevant, and can be thrown away.

13.7. Electricity and the appliance

An electrical appliance (a human body) is an inert object that comes to “life” when electricity (Awareness) flows through it (identifies with it). In the absence of the electricity, the appliance is “dead”.

13.8. The gold object

The gold in a bracelet is the same as the gold in a ring. Only the form is different. If the bracelet and ring are melted down, the forms change, but we still have the gold, which is unchanged. The gold is the analog of pure Awareness, while the forms of the bracelet and ring are the analog of the manifestation.

13.9. The dust in a light beam

A light beam is invisible unless it strikes something that reflects it. Awareness (the light beam) perceives itself by reflecting from the manifestation, which is also itself. Awareness sees its own light reflected from Itself and is thereby aware of Itself.

13.10. The mirror

An ideal mirror (pure Awareness) is invisible and reflects images (the manifestation) without distortion and without being affected by them. Thus, It reflects pure Reality truly. A distorted mirror reflects distorted images. Thus, it reflects Reality as if It were distorted by separation. Without a mirror there can be no images (perception), and without images, the presence of the mirror would not be apparent.

13.11. The snake and the rope

In dim light (ignorance), a rope (the manifestation) can be mistakenly perceived as a snake (a world separate from the self), and fear can result. When a bright light (Awareness) is turned on, the rope will be seen for what it is (nothing but Awareness itself). This metaphor can also be used to refer to the ego (the snake), which is seen to be nothing but Awareness (the rope) after awakening.

A variant of this metaphor is the ego seen as the rope itself (no snake). During the steps to awakening, the rope is burned in the fire of Awareness. After awakening, only the burned rope remains. The ego still persists but has no power to bind anyone, or to tie anybody up. This powerless ego is the remaining identification of Awareness with the body-mind organism, which is necessary for the organism to survive.

13.12. The mirage

A desert mirage (the manifestation) as seen from a distance (from ignorance) appears to be water, but up close (after awakening), is seen to be a reflection of the sunlight (Awareness).

13.13. The pot and the space in which it exists

The space (Awareness) in which a pot (the fictitious “I”-entity or the world) exists is unaffected by the pot. The same space exists outside, inside, and within (is immanent in) the walls of the pot. When the pot is broken (when awakening occurs), the space inside and within is seen to be the same as the space outside. A slight variation of this metaphor makes the inner space the mind, the outer space Awareness, with the mind merging with Awareness at awakening.

Chapter 14. Space, time, causality, and destiny

14.1. The concepts of space and time

Consciousness is all there is. The reality of Awareness is not a concept. Everything else is. Space is a concept that is no more real than the objects that appear in it. The concept of the three dimensions of space allows the concept of three-dimensional objects to appear. The conceptual nature of space is clarified if we think of the difference between the concepts “hereness” and “here”. The concept “here” implies the concept “there”, which is equivalent to “not here”. Thus, the unbroken wholeness of hereness has been divided by conceiving it to consist of two parts, here and there. Without the concept of space, there is only the wholeness of hereness.

Without the concept of three-dimensional space, there is no concept of three-dimensional depth, so all spatial forms appear at the same “depth” in the mind. This is immediately clear when we close our eyes. However, when we open them again, thoughts and “external” objects seem to appear at different depths. Thus, the illusion of depth is a result of binocular vision. However, since there is no intrinsic difference between thought and perception (see [Section 9.2](#)), without the concept of depth, thoughts and objects appear at the same depth.

Even, with our eyes closed, there still is the illusion of horizontal and vertical extent because of the kinesthetic sense from moving our eyes horizontally or vertically. This is then conceptualized into the horizontal and vertical dimensions of three-dimensional space.

The concept of successive frames in space (e.g., in quantum theory caused by successive wavefunction collapses) form a succession that allows the concept of time to appear. The concept of time is complementary to the concept of space, and forms a fourth dimension that is perpendicular to the three spatial dimensions. Because the concept of time depends on the concept of change, we have the equivalencies, time=change=duration=succession. As with space, it becomes clear that time is only a concept if we compare the concept “nowness” with the concept “now”. The concept “now” implies the concept “then”, which is equivalent to “not now”. The unbroken wholeness of nowness has been broken into two parts, now and then. Without the concept of time, there is only the wholeness of nowness. One well-known attempt to point to the Reality that transcends conceptual space-time is the 1971 book by Ram Dass entitled, “*Be Here Now*”. (Reportedly, at one time it was the third most popular book in English, next only to the Bible and Dr. Spock’s baby manual.)

The concept of time depends on the concept of memory (see [Section 9.5](#)), without which we could not compare successive frames and thus form the concept of change. Without change, there is no experience, so all thoughts, feelings, emotions, sensations, and perceptions are concepts that depend on the concept of memory. Time can be conceptually divided into two major parts, past and future, which are inseparable polar opposites (this is a more conventional division than dividing it into now and then as in the previous paragraph). The concept of now becomes nothing more than a conceptual boundary between the conceptual past and conceptual future.

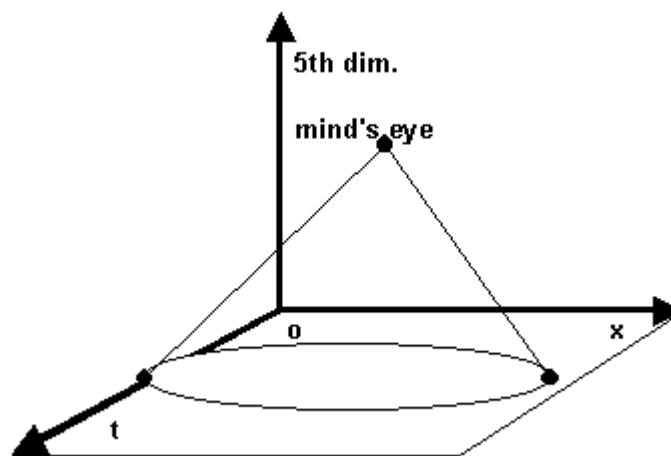
Without the concepts of time and space, all further conceptualization is impossible. In particular, the concept of the personal identity arises from the persistency of the concepts of personal doership and choice (see [Section 11.2](#)). Without such persistency, the conceptual “I” could not arise. Thus, the “I” depends on the concept of time. In timelessness, there is no “I”.

We see only one slice of conceptual three-dimensional space (one still) at a time, and all of the slices coming in succession, we call the passage of time. The limitations of the mechanisms of perception prevent us from seeing all of the slices simultaneously. If we could see them all simultaneously, the concept of time would not arise. (There is a remarkably accurate saying: “Time is what keeps everything from happening all at once.”) We may have visions of the “future”, even startlingly “real” ones, but these are really visions of the subjective present because they occur only in the subjective present. The same is true of visions and memories of the “past”. These examples show that the “past” and “future” do not exist as separate eras but actually consist of experiences in the subjective present, which is the only “time” there is.

Consequently, just as there is no objective reality outside the mind for space and the objects therein, there is no objective reality outside of the mind for time and the events therein (see [Section 9.2](#)). Whatever past or future there is exists only in somebody’s mind. If it is thought to exist only in one mind, it is considered to be subjective. If it is thought to exist in several minds and there is agreement on it, it is considered to be objective (see [Section 9.4](#)). We can infer that there are other minds from our sense of connectedness but we cannot directly experience the world of another mind.

We have seen that three-dimensional space can be conceptualized in its entirety at every instant in time, each instant being one point along the fourth dimension of time. Now we can imagine seeing all points in space-time from a single point along an abstract fifth dimension that is perpendicular to the four dimensions of space-time. From each point in this fifth dimension, all events in past and future, at all spatial points, are accessible, i.e., the mind is nonlocal in space-time.

The drawing below illustrates this concept. Since we cannot depict 3-dimensional space here, we use only the x direction to denote all of space. Then the x, t plane (the horizontal plane in the diagram) denotes all of space-time. The fifth dimension is shown in the vertical direction. A mind's-eye off of the space-time plane can then see the whole horizontal plane (all of space-time).



14.2. The concepts of nonlocality in time and space

In [Section 9.2](#), we introduced the concept of the individual mind. We said that the mind is not in space-time but that space and time are concepts within the mind. Also, in [Sections 5.2, 9.2, 9.4, 14.1](#), we discussed nonlocal mind. By nonlocal mind we mean the mind appearing within the context of nonlocal Consciousness. (This is a more precise definition of nonlocal mind than the one given in [Section 5.2](#).) By virtue of nonlocal Consciousness, nonlocal mind allows instantaneous correlations to occur between two widely separated regions of space-time, similar to those observed in the Bell-Aspect experiments described in [Section 4.3](#).

Nonlocality of the mind in time can also be understood conceptually if events are projected into the mind from the holomovement (see [Section 8.1](#)), which, because of its wholeness, contains all that potentially could happen anywhere in the universe during any era of time. Evidence for nonlocality in time is given in the book by Russell Targ and Jane Kutra, *Miracles of Mind* (1998), and was listed in [Section 5.2](#).

Nonlocality of mind in space was also cited in [Section 5.2](#). Nonlocality in space can be explained conceptually if events located anywhere in space are projected from the holomovement into the mind.

Nonlocality might be also explained, at least in part, by the concept of the so-called subtle

body, which is thought to be a nonphysical body that is associated with the physical body, but which can be spatially much larger (see, e.g., Richard Gerber, *Vibrational Medicine*, 1988). Some people with psychic abilities are able to “see” the subtle body as an aura and can observe it expand and contract with the expansion and contraction of its awareness. (Possibly some of the readers of this course have this ability.) The laws that govern the subtle body, which are not known, may allow it to be nonlocal in both time and space. Since we know next to nothing about it, we cannot say whether its nonlocality is limited or whether it can be sensitive to all phenomena that have ever existed and all that will ever exist.

There seem to be two separate types of nonlocality in space. One type, such as remote viewing, is apparently independent of distance. Targ and Kutra state in *Miracles of Mind* that the accuracy and resolution in remote viewing have been shown to be insensitive to distance up to 10,000 miles. This type of nonlocality could be explained if these phenomena are projections from Bohm’s holomovement, which transcends space-time, and in which all possible events have abstract representations that are independent of time and space.

On the other hand, some nonlocal phenomena are weaker the greater the distance. (Because of this distance dependence, we cannot say that such phenomena are nonlocal in the strict sense. However, we shall continue to lump all such phenomena of the mind into the same category of nonlocality.) One such example is the peace and tranquility that are commonly experienced in the presence of a great yogi or in a group of meditators (discussed further in [Chapter 16](#)), but which decrease rapidly with increasing separation. This type of nonlocality might be explained by the overlap of the auras or subtle bodies, which decreases with separation because of their finite sizes.

After all this has been said, we must not forget that nonlocal mind is nothing but a concept that is introduced in order to explain other concepts, such as instantaneous correlations between different regions of space-time. Consciousness is still all there is.

14.3. The concept of causality

Seemingly, the most well established law in phenomenality is the law of causality, which states that the present and future are determined by the past. In fact, in everyday life, we usually use a more restricted form of this law, which states that a certain isolated set of events (such as your decision to read this course) at one time determines another isolated set of events at a future time (your active participation in this course). However, since the future and the past are conceptual fictions, there cannot in fact be any general law of causality. If all events exist in the present moment (this is the concept of destiny which we will discuss in more detail below), there is no room or need for a separate law of causality. Furthermore, even if all events did not exist in the present moment, it would be impossible to isolate any one event from all of the events that ever preceded it (e.g., it is impossible to isolate your decision from all of the preceding events of your life, and from all of the events in the lives of all of the people who have influenced you). Thus, this more restricted form of causality is doubly invalid, because it requires not only the fictions of past and future, but also the illusion of isolation of an event in space-time.

This has profound consequences with regard to our concept of free will. The concept of free will is identical to the concept of “I”, the freely willing, individual self that can freely bring about

the satisfaction of its desires. This depends on the concept that there is an individual who is separate and isolated from the rest of the universe (see Sections [5.10](#) and [5.11](#)), who can freely choose his/her own desires (whose desires are unaffected by causality), and yet who can control to its satisfaction the causal chain of events in order to satisfy his/her desires. However, either causality is valid, in which case there can be no separate, isolated individual with freely chosen desires, or it is invalid, in which case there is no possibility that such an individual could ever cause anything to happen.

We know that, within the concept of time, strict causality is impossible because of the probabilistic nature of quantum mechanics. However, if events are probabilistic rather than determined, then desires and actions also would be probabilistic, with no possibility of control over them by a purported doer. Thus, regardless of the degree of admixture of probability that exists, it does not affect our discussion of free will and the individual.

The doctrine of causality coupled with that of the separate, freely willing I-entity, is the doctrine of karma. This doctrine states that causality ensures that all of the choices we have made in all of our past lives determine what happens to us today, and, together with all of the choices we will make today and in the future, will determine what happens to us in our future lives. (The concept of reincarnation is an essential component of the doctrine of karma.)

One might think that the concept of volition or free will could provide the possibility of escape from past karma because it would allow us to begin a new chain of causal events uncoupled from the past. However, as we have just seen, the belief in free will is incompatible with the belief in causality. The belief in free will coupled with the belief in causality merely results in the feeling of guilt and regret for past actions and the fear of future consequences.

The belief in karma is probably largely responsible for the efforts of many religious people, particularly in Hindu countries, to attempt to renounce the world and all material things in order to escape from the inexorable wheel of reincarnation and bondage. They fail to realize that the real cause of bondage is the sense of the individual “I”, and it is this that must be renounced. However, it is futile to ask the “I” to renounce itself because by trying to renounce itself, it only reaffirms itself. The only true renunciation is the spontaneous disappearance of the “I”.

From this discussion, we see that any discretely identifiable cause must be an isolated, separate object or event (an evident impossibility as seen above). Thus, the concept of separation is an intrinsic part of the everyday concept of causality. We have also seen that the concepts of separation and causality are intrinsic parts of the concept of free-will or volition. We now can see why the individual has such difficulty in seeing the nonexistence of causality. If causality is real, then so are separation and free-will, the essential components of the ego. The ego insists on causality because causality justifies its own existence!

In the commonly held concept of causality, it is the past that determines the future. This concept is an arbitrary one and is held only because the past is presumed to be known, while the future is unknown, and there is the desire to predict and control unknown future events from known past events. However, as we have seen, the concept of causality reinforces the concept of the individual, who has a desire to exert some control over an unknown future. We might ask, “Within the concept of time, is it possible that the future determines the past, rather than the past determining the future (see also [Section 5.15](#))?” There is no scientific reason that

it could not. In fact, there are two types of solutions to the Schrödinger equation, the “retarded” solutions and the “advanced” solutions. The retarded solutions describe future events as being the result of past events. The advanced solutions describe past events as following from future events. Both types of solutions arise because all microscopic physical laws are just as valid in the reversed as in the forward time direction. However, in practice, the advanced solutions are always discarded as being “nonphysical” because to use them we would first need some knowledge of future events, and with them we could only predict the past, which is already known. Nevertheless, this leaves unanswered the philosophical questions, does the future determine the past, or does the past determine the future, or is it all determined? Of course, such questions lose their urgency when it is realized that time itself is only a concept.

The absence of a law of causality does not imply randomness of events. It just means that events happen causelessly. Randomness implies absence of a pattern, whereas causelessness merely implies the absence of a cause for the pattern. By examining the manifestation, we can discern temporal and spatial patterns of events but we cannot discern a cause, since any pattern can happen causelessly. The concept of causality is a correlate of the concept of objective reality, and the falsity of the latter implies the falsity of the former (see next section).

14.4. The nature of laws

There are commonly supposed to be at least three kinds of laws:

a) Laws of God. These depend on how God is defined. If God is a word for the Unmanifest (see [Section 10.1](#)), then God transcends all laws because the Unmanifest (Noumenon) transcends all concepts. Thus, there are no such laws of God. If God is a word for Consciousness, i.e., all that is ([Section 10.1](#)), then the laws of God encompass everything that happens. Thus, in both cases, the term “Laws of God” is a meaningless concept.

b) Laws of nature. These are the laws that scientists seek to “discover”. They are mathematical descriptions (concepts) of selected patterns of regularity that are observed in the manifest world. Consequently, as the observations change and become more refined, so do the laws.

c) Laws of man. These are rules of behavior that are conceptualized by society in order to create and maintain order, and to preserve the existing power structure.

As we have seen in the previous section, the law of causality is only a concept. Now we see that all laws are nothing but concepts. If laws really existed apart from concepts, they would be part of objective reality. But we have seen that objective reality can never be shown to exist (see [Section 1.1](#)), and indeed its hypothesis produces paradoxes in the interpretation of quantum theory (see Sections [6.9](#) and [6.10](#)). Furthermore, even if an objective reality did exist, it would make no difference in our observations (see [Section 6.10](#)). Thus, we can safely assume that laws are conceptualized rather than discovered.

14.5. The concept of destiny

We have seen that, even though most of us cannot directly see past or future, they cannot be

separate from the present since past, present, and future are fictions. The concept that both the future and the past exist in the present and are fixed and unchangeable is the concept of destiny. This concept arises from our observation that there is a coherent and understandable pattern of events in history rather than a random one. A useful analog is the film in the movie metaphor (see [Section 13.2](#)).

The concept of destiny is not the same as the concept of determinism because destiny is not a result of deterministic laws operating in the past to determine the present and future. The concept of destiny does not require any laws at all, nor does it require the concepts of past and future because it states that everything exists in the present.

Because of wholeness, the concept of destiny is an integral part of the concept of Bohm's holomovement ([Section 8.1](#)) and of the other transcendental realms. Destiny allows no room for free will or volition, and hence, there can be no individual doer. Every detail of our future, including every thought, feeling, emotion, and sensation that we will have, are already present in this picture. Whether we will have a sense of individuality and free will is already determined together with what the outcomes of all of our "choices" will be, when our spiritual search will begin, and if and when awakening will occur. All of this exists now. That most of us cannot see it is all part of the plan. If we were all able to see it, the game would be up, and the manifestation would cease. Even though sages themselves are unable to see all the details, some of them have an intuitive sense that "it is all there" (as Ramesh puts it), and that nothing that happens is ever lost.

The concept of "I" as thinker and doer cannot explain certain mysteries. Many people have wondered what made them make past choices that seemed so innocent at the time but which led to rather remarkable coincidences later. Almost everybody has wondered how seemingly unconnected events conspired to produce felicitous convergences or synchronicities at later times. Both situations suggest the concept of destiny, and the wonderment that they inspire represents the mind beginning to lose some of its grip on its concept of how the world "should" operate, thus allowing the intuition to reveal something totally new.

The concept of destiny (what Ramesh also calls "God's Will" or "Cosmic Law") may be acceptable to some seekers but not to others. No matter, because it is a purely metaphysical concept that cannot be verified empirically. We have already used the alternative concept that everything happens completely spontaneously (causelessly). Within the latter concept, there is no room for individual doership and free-will, just as there is none in the concept of destiny. Furthermore, it is easily verified merely by watching to see that all thoughts arise spontaneously, including any thought to choose or to do (see Chapters [22](#) and [24](#)). We have already seen that the only spiritual value that a concept has is its effectiveness in pointing to Reality, but its effectiveness depends on its being consistent with intuition and experience and otherwise being acceptable to the individual. To accept the concept of destiny requires that the intuition be able to sense, however dimly, that both past and future exist and are fixed and unchangeable. Not everyone's intuition may permit this, so some may prefer the concept of the spontaneous, impersonal functioning of Consciousness, or the concept of God's will discussed below. Ramesh has used all of these concepts, at one time emphasizing one, at another time, another.

Some people have difficulty accepting the concept that the manifestation is not caused but just

happens spontaneously, or that it is determined by a destiny that itself is not caused but just happens spontaneously. This difficulty arises from an unquestioning attachment to the concept of causality, which requires an identifiable cause for everything that happens. However, an attempt to preserve causality by proposing some entity, such as a god, that causes everything to happen solves nothing because it merely provokes the question, what caused the entity? This leads to an infinite regression of causes unless it is terminated by a causeless cause, or unmoved mover, which again is equivalent to a spontaneous happening.

Another answer to the question, “Why is there not a god or entity who is willing, or otherwise determining, what happens?” is the counter-question, “Who is the “I” that is asking the question?” This now becomes an exercise in enquiry. When the “I” is investigated, it becomes clear that it does not exist. Thereupon, both questions disappear. Still another answer is the realization that the existence of such a god or entity can never be verified, which is evidence that it is nothing but an empty concept.

When Ramesh uses the term God’s will as an equivalent to the concept of destiny, he means God as Consciousness or Totality, not as an entity. The purpose of the concept of God’s will is to function as a power symbol that can undermine the concepts of the ego and the individual doer. If everything is determined by God’s will (destiny), there is no room for an individual doer.

The whole purpose of introducing concepts (thorns, see [Section 13.6](#)) such as spontaneous (causeless) happening, destiny, or God’s will, is to help make clear that there is no such thing as a doer (the original thorn). To show directly that there is no doer, we shall use the disidentification practices discussed in Chapters [20](#), [21](#), [22](#), [23](#), [24](#). In these, we do not use the terms destiny or God’s will because they require even further explanation and because they cannot be verified. Instead, we use their more intuitive equivalents, viz., spontaneous, causeless happening, or, whatever happens.

14.6. We are already here now

In the state of spiritual ignorance, which is the state of apparent boundaries and separation, the conceptual present is simply the boundary between the conceptual past and future, and cannot be perceived as such. Perception can see only change and nothing but change. This is the temporal aspect of phenomenality. However, pure Awareness, which is What-we-are, is outside of time, i.e., in the absence of time. This intemporality is sometimes called the eternal present moment. After awakening, it is seen directly that temporality (change) is only conceptual, not real.

Even in spiritual ignorance, it is easy to see that change can be perceived only because time occurs within timelessness. The motion of a uniformly flowing stream can only be seen from its banks because an object flowing with the stream sees no motion (change) of the water next to it. We can see change because we perceive it from a background of changelessness. This is direct evidence that our awareness is pure Awareness. We are nonlocal Consciousness, not individual mind.

Similarly, we can perceive space because we are spacelessness. We can see objects because we perceive them from a background of objectlessness. This applies to any object,

even to thoughts, feelings, emotions, and sensations. For example, we can feel pain because we are painlessness, and we can perceive a thought because we are the absence of thought.

14.7. Maya, the divine hypnosis

Maya is a Hindu concept that attempts to explain why we believe that the waking dream (see [Section 13.1](#)) is real. Maya originally denoted the power of wizardry with which a god can make human beings believe in what turns out to be an illusion. By extension it later came to mean the powerful force that creates the cosmic illusion that the phenomenal world is real. (Ramesh uses the term “divine hypnosis” to mean the same thing.) Of course, maya is just a concept that purports to explain the apparent reality of other concepts. As we saw in [Section 9.4](#), objective reality is a result of the process of objectification, which is conceptualization (see [Section 9.2](#)) plus identification (see [Section 11.2](#)). This means that no objects, entities, or physical laws have any reality in themselves. Their seeming reality stems from the reality of Consciousness. The subtlety of maya becomes evident when we examine why we believe the world is real. We believe objects are real because we do not see the underlying Awareness from which they arise and of which they consist (see [Section 22.3](#)). Then, we believe the law of causality and other physical laws because we believe that we are separate entities and we want the power to satisfy our desires and to change our environment.

Chapter 15. Free will and responsibility

The doctrine of individual free will and responsibility is widespread in both religion and psychology. The traditional doctrine of free will states that the individual is free to choose his thoughts and actions, and indeed must so choose. A poor or mistaken choice may lead to suffering, while a felicitous or correct choice may lead to happiness. Responsibility as it is conventionally defined means that one’s suffering or happiness are a direct result of choices freely made. However, no traditional teaching dares to assert that a correct choice will always lead to happiness, for there is always the karmic result of past choices which must be endured, not to mention the role of chance in heredity and environment. Thus, causality and chance severely limit the fruits of one’s choices. Furthermore, no choice even in itself can ever be entirely free because genetics and conditioning are always inseparable components. Thus, in traditional thinking, it is in fact impossible to determine that a choice was ever really freely made; hence, it is never really possible to assign blame, credit, or responsibility for any choice. This does not prevent people from attempting such assignments, however. Indeed, when society punishes a transgressor, there is usually as much self-righteous outrage present as there is desire to deter or to condition future behavior. The tendency to assign or to assume total responsibility regardless of the actual degree of freedom in the choice places the chooser in a hopeless double bind. It seems that the only way to escape one’s heredity and conditioning is to assert one’s free will, yet free will is never possible because of one’s heredity and conditioning!

In some dualistic New Age teachings, in particular in *A Course in Miracles (ACIM)* and in the “Seth” books of Jane Roberts, the double bind is escaped by simply asserting that all choices are totally free! Thus, the traditional concept of responsibility has been expanded to state that everything at all times that happens to an individual is a result of choices freely made, and that one must accept responsibility for one’s entire life. This implies that one’s heredity and environment are also a result of choice. The superficial advantage of adopting this point of

view is that there is no room left for any ambiguity in accepting responsibility, and there is never any justification whatsoever in blaming anybody or anything else for one's own lot in life.

In this philosophy, since everything that happens to us is our own responsibility, the existence of separate, autonomous individuals who are making individual choices is not allowed. Therefore, we must comprise a single, collective, transcendent self (not the Self) which is making all of the choices. This is seemingly an empowering concept, because it requires that we accept the responsibility of being the sole cause of our destiny. However, a danger is that it can lead to tremendous guilt, regret, and self-condemnation when the inevitable misfortunes and disasters occur and we are forced to accept that our own choices brought them about. The only way out of this guilt is to realize that we also have the choice of whether or not to feel guilty, and to regard the event as a blessing rather than a disaster. A major problem with this teaching is the complicated and unverifiable nature of the metaphysics. It must be accepted on faith as a theological truth.

In the teaching of *ACIM*, as in the dream metaphor that we used in [Section 13.1](#), the world is a dream and all of the "individuals" are merely dreamed figures with no volition or free will. In both cases we are in reality transcendent to these figures. However, in contrast with nonduality in which we are pure Awareness, in *ACIM* we are the transcendent dreamer, which is a being with form, structure, intention, and volition. Thus, *ACIM* is dualistic because in it there is a separation between the dreamer and God. This separation is more than a merely dreamed separation, because in *ACIM*, God is our creator and knows nothing about the dream. However, if there were really no separation, God could not be our creator because then we would be God. In this course, we do not use the concepts of God and creator because, not only are they not useful pointers to Reality, but they can, in fact, be downright misleading. Because fear inevitably arises whenever there is a belief in separation, if we think of God as our creator, we will fear God.

In contrast with nonduality, which says that the dream is a completely spontaneous happening within Consciousness, the dreamer of *ACIM* has total responsibility for everything that happens in the dream, as well as for the dream's (world's) existence in the first place. This responsibility exists even though the dreamer is asleep, but, of course, the dreamer has chosen to fall asleep. In addition to giving us this unfathomable burden of responsibility, *ACIM* is much more complicated than nonduality. Important parts of it, such as the existence of the dreamer and of the choices it made prior to this lifetime, are intrinsically unverifiable, and are therefore merely theological assertions. Such assertions make the metaphysics unbelievable to the incredulous. Because they are made only to preserve the concept of free will which itself cannot be verified, there are no grounds for making them.

Both the traditional and the New Age ways of thinking are based on the assumption that there is an entity who makes choices and who must accept responsibility for the outcomes of those choices. Traditionally, this entity is the individual, whereas in *ACIM*, the entity is the dreamer. In contrast, we have already seen from empirical observation, not from *ex cathedra* pronouncements, that there is no free will (see Sections [5.9](#), [5.10](#), [5.11](#), [5.12](#), [5.13](#), and [10.2](#)) so there can be no responsibility. Furthermore, the sages of nonduality never speak of any kind of transcendent entity that chooses. The dream happens completely spontaneously.

[Note: An alternative approach to the conflict between different free wills in different minds is to

adopt the concept of solipsism (see [Section 9.2](#)). In solipsism, there is only one mind, there are no others with which it can conflict, and there is no unverifiable concept of objective reality. Thus, the mind can have total responsibility for everything that happens without that responsibility being a source of suffering either to itself or to others. However, to be convinced that your mind is the only one in the face of the testimony of others, and of your feeling of connectedness, is difficult, see [Section 9.2](#).]

An argument often arises in the mind in opposition to the concept of no responsibility. If there is no responsibility, what is to prevent an individual from being irresponsible, perhaps even indulging in the desire to steal or murder? If stealing or murder is to occur, then it will occur, if not, it won't. This will be true both before and after a person questions the concept of responsibility. Everything happens as it must, whether or not the concept of responsibility exists. It is very clear that this concept has not prevented stealing and murder from happening in the past. Everything is part of the impersonal functioning of Consciousness, including stealing and murder. In addition to producing suffering, the concept of responsibility encourages a sense of moral outrage to arise when the event occurs, and a sense of moral retribution when the "perpetrator" has been caught and punished. Both reinforce the concept of separation. Of course, there is no perpetrator. We must clearly understand, however, that the widespread beliefs in the concepts of responsibility and retribution are also merely part of the functioning of Consciousness. It is all happening just as it must. (Even though sage has no sense of individual responsibility, he/she is highly unlikely to steal or murder because the sage sees no separation or individuals, see [Chapter 16](#).)

Speaking now within the context of nonduality ([Section 10.1](#)), is there a definition of responsibility? Of course, there cannot be any responsibility if there is no free will and no individual. However, some sages of nonduality, such as Ramana Maharshi, Russell Smith, and Nome, tell us that we are free at any time to choose to wake up and be free, since freedom is our true nature. When asked whether there was free will or destiny, Ramana Maharshi said to some people that everything is predetermined, to others to find out who it is that has free will, and to still others that, as long as there is individuality, there is free will. Thus, these sages direct their answers to the level of acceptability by the questioner.

The sense of being a separate individual is necessarily associated with the concomitant sense of having free will. Therefore, as long as we think of ourselves as individuals, we will feel that we are making choices. Some sages capitalize on this by teaching us that we are free to enquire into this sense of individuality and free will and thereby to look for the source of the I-notion. But freedom of choice can only be a concept that may be useful for some people at some time to encourage them to question their freedom of choice and to see whether there can be true freedom in a mere concept.

Ramesh, Wei Wu Wei, and their enlightened disciples are the only Western sages of nonduality whose teachings consistently emphasize the absence of free will because the sense of free will is the source of all suffering. Other sages will at times ask that the disciple take responsibility for choosing, and at other times will say that everything happens according to destiny. The circumstances, and the state of the disciple's ego determine which approach is taken. It is thus clear that for these latter sages, consistency is less important than using the most effective pointer to Reality for a particular disciple, time, and situation. They attempt to avoid the logical dilemma by saying that, as seen from the dream there appear to be

individuals and free will, but as seen from Reality there are no individuals and there is no free will. (None of these sages refer to a metaphysical transcendental self that chooses as does *ACIM*.)

From this discussion, we can see that to question the existence of free will is only one approach to the problem. Another approach is to question the existence of the I-entity itself. When sages like Nome and Russell Smith say we are free to be free, the question must arise, who are the we? In Ramesh's teaching, there is no I-entity that can do anything, including questioning the existence of the I-entity and free will. If questioning happens, it is because it must. If it doesn't, it cannot. It is this understanding that leads to freedom.

Chapter 16. Love seeking Itself

The tradition of agape (ah-**gah**-pay), or unconditional, altruistic love, is a major underlying principle found in all religions worldwide. Altruistic love is a concept that challenges the spiritual person to "love your enemies," or to "love without thought of return." It is a love that flows out to others in the form of compassion, kindness, tenderness, and charitable giving.

Buddhists have a path of compassion, in which caring for others becomes the motivating force behind existence. Hindus have a branch of yoga, the heart-centered path, which leads to enlightenment through an overwhelming love for God that takes the form of loving all of humanity. The Chinese religions, Taoism and Confucianism, see transcendent love as an essential part of true wisdom.

Since all religions and spiritualities teach the value, power, and necessity of love, we must ask, what is the role of love in Advaita? In order to answer this question, one must distinguish between what the world thinks is love, and what Love really is as seen by the jnani (the sage). According to the jnani, Love is a term that can be used to describe Consciousness expressing itself as the manifestation. In enlightenment, this is seen directly (see [Chapter 25](#)).

Ramesh has said,

"The presence of separation is the absence of love, and the presence of love is the absence of separation".

In the meditation for January 13 in *A Net of Jewels* (1996), he paraphrases his guru Nisargadatta (see also the second quote by Nisargadatta below):

"It is only when you arrive at the deepest conviction that the same life flows through everything, and that you ARE that life, that you can begin to love naturally and spontaneously".

In the meditation for January 18, he says,

"Love as the word is generally understood, denotes separation, whereas in true non-objective relationship we do not love others, we ARE others."

In *From Seekers to Finders* (2000), Satyam Nadeen says,

"... my only definition of love is embracing whatever-is, just as it is, and only because it is---without conditions that it be other than what it is".

In *As It Is* (2000), Tony Parsons says,

"All and everything emanates from silence and unconditional love."

In *The Wisdom of Sri Nisargadatta Maharaj* (1992) by Robert Powell, Nisargadatta Maharaj is quoted as saying,

"When all the false self-identifications are thrown away, what remains is all-embracing love."

In *The Ultimate Understanding* (2001), p. 180, Ramesh says that Love is more accurately called "harmony" or "beatitude". In *The Seeking* (2004), p. 77, he said that the feeling to do something for someone without expecting something in return could be called Love.

Those who still see themselves as individuals are usually unaware of the transcendental love that even they are part of. Religion sometimes points to it, but since Love is not a concept or rule of behavior, it cannot be packaged in a doctrine and taught.

How is transcendental (nondualistic) love different from worldly (dualistic) love?

Transcendental love is not an emotion but transcends all emotions, is always unconditional since it recognizes no change, and is impersonal since it recognizes no person. It transcends all objects so it cannot be directed towards any object. On the other hand, since the perception of separation is the distinguishing feature of ignorance, worldly love is always dualistic and is based on the desire/fear polarity. It is highly personal and can take the form of pleasure, completeness, joy, desire, loneliness, jealousy, possession, guilt, responsibility, need, identification, subjugation, or submission. Because it is an emotion or sentiment that is felt while perceiving separation, it is in a different realm entirely from transcendental love. However, since transcendental love is the background of everything in manifestation, even worldly love partakes of it while remaining largely unaware of it.

In a travesty of Love as Reality, love is often depicted in popular culture as more torment than peace. Witness, e.g., the mournful wail of lost, unrequited, or secret love in the "love" songs of popular and country music. In fact, the suicide rate among devotees of country music is higher than that of the general public (*The Effect of Country-Music on Suicide*, S. Stach and J. Gundlach, *Social Forces* 71 (1992) 211-218). Many singers have become professional sufferers in an effort to make their music sound authentic. And the story of love in the movies is often an agony of ecstasy, insecurity, and guilt, until the story ends at a marriage---if not the first marriage, the next ... or the next

Personal love relationships have been called special relationships because they occur only between specific people in special circumstances. They are conditional and changing, but all are a form of bondage because they are always infected by power struggles (see Sections [11.3](#) and [11.4](#)), and are invariably guilt-ridden (see [Section 11.5](#)). Furthermore, because they are barter relationships, they depend on the mutual satisfaction of expectations and demands.

When these are met, there is temporary gratification, gratitude, and enhanced self-esteem, but when they are ignored or refused, there is dismay, rejection, and guilt. Because barter relationships can survive only as long as each side has, and is willing to give, something the other wants, many personal love relationships end in disillusion. Others, after a long period of partly met and partly disappointed expectations, settle down to resigned acceptance (not true acceptance, see Chapters [19](#) and [24](#)). Still others, after surviving their initial specialness, approach the unconditional nature of transcendental love.

In romantic love, the much-sought “soul mate” is the perceived missing half of a perceived duality (“opposites attract”). Ironically, when the soul mate is finally found and possessed, the ego feels even more needy and incomplete. (Here, we shall speak as though the ego exists, while knowing that it does not.) It fears the loss of both the other and itself. Guilt is seen as a necessary part of this “love”, both for its intensity (“love hurts”), and as a tool to manipulate the other (“if you really loved me you would ...”). So as not to lose the other, the ego may become neurotically dependent (“I can’t live without you”) or remorseful (“please forgive me”), or it make promises (“I’ll never do it again”). And it may try to regain its lost self-esteem by inducing jealousy (“if you don’t love me, I’ll find somebody who will”) or by belittling (“without me you would be nothing”).

In religious circles, love is often taught as a religious practice (see also [Chapter 12](#)). For example, Jesus taught his disciples to love others, with the ultimate goal being universal love. In *Matthew 5:43-48* (Revised Standard Version, from <http://etext.virginia.edu/rsv/browse.html>), he is reported to have said:

43: “You have heard that it was said, ‘You shall love your neighbor and hate your enemy.’

44: But I say to you, Love your enemies and pray for those who persecute you,
45: so that you may be sons of your Father who is in heaven; for he makes his sun rise on the evil and on the good, and sends rain on the just and on the unjust.

46: For if you love those who love you, what reward have you? Do not even the tax collectors do the same?

47: And if you salute only your brethren, what more are you doing than others? Do not even the Gentiles do the same?

48: You, therefore, must be perfect, as your heavenly Father is perfect.”

However, love as a practice is dualistic and comes as half of the love/hate dualism, so it is virtually impossible for a practitioner to avoid feeling failure, frustration, guilt, and fear. Love is not something you can do. Love just is (see [Chapter 25](#)). On page 213 of *I Am That* (1984), Nisargadatta (Ramesh’s guru) says:

“Do not pretend that you love others as yourself. Unless you have realized them as one with yourself, you cannot love them. Don’t pretend to be what you are not, don’t refuse to be what you are. Your love of others is the result of self-knowledge, not its cause. Without self-realization, no virtue is genuine. When you know beyond all doubting that the same life flows through all that is and you are that life, you will love all naturally and spontaneously. When you realize the depth and fullness of your love of yourself, you know that every living being and

the entire universe are included in your affection. But when you look at anything as separate from you, you cannot love it for you are afraid of it. Alienation causes fear, and fear deepens alienation. It is a vicious circle. Only self-realization can break it.”

An exalted form of worldly love is identification with another person. This can occur in marital and familial relationships. It can also occur in bhakti, the practice of devotion and surrender to God or guru (see [Section 10.3](#)). Because intuition is the link between separation and wholeness, it is intuition that gives us a sense of identification even within the illusion of separation.

Identification with another is perhaps as close as we can come to transcendental love while still retaining a belief in separation. The less separation there is, the more unconditional love there is. As separation vanishes, you begin to see another as you. Indeed, unconditional love can be described as seeing others as you.

Identification with another may be a result of nonlocality of mind, defined in [Section 14.2](#). The feeling of closeness and identity that exists between many people may be more real than they suspect because two or more minds may actually overlap if their subtle bodies overlap, as was suggested in [Section 14.2](#). Those who are able to sense auras can easily sense when one person’s aura expands to include another person’s. A common experience among spiritual seekers is the feeling of peace and serenity that prevails in an ashram or other gathering of seekers. This experience is especially striking when one is enveloped in the aura of a powerful yogi like Master Charles of the Synchronicity Foundation. Maharishi Mahesh Yogi, the founder of Transcendental Meditation, has elevated it into a guiding principle, which he calls the “Maharishi Effect”. This states that, when a group of people are meditating together, they create a harmonious, tranquil influence that is felt not only by the meditators, but also by anybody else in their vicinity. He has even formulated it into a quantitative principle—the number of people whose mental states are harmonized by a group of people meditating is equal to one hundred times the square of the number of people meditating.

Some spiritual teachers (e.g., Gangaji) speak of a single, profound experience of awakening that occurred while they were in the presence of their master. They call this phenomenon “transmission”, and it might result from the overlap of subtle bodies discussed in the previous paragraph (see also [Section 18.4](#)). Other teachers say it happens more gradually over time. Some teachers (e.g., Francis Lucille) at times call it the “direct path” (but this is only one form of the direct path, see another in [Section 22.4](#)). Ramesh has called it “magic”, and says on p. 142 of his book, *Peace and Harmony in Daily Living* (2003):

“. . . the average person experiences a certain kind of peace and relaxation in the sage’s company and he realizes that this has rarely anything to do with what is talked about during the meeting. The very presence of the man of wisdom seems to exude peace and harmony in spite of the fact that he seems to respond to outside events with an absolutely normal reaction!”

We now present a heuristic hypothesis about nonlocal mind: The more disidentified the mind, the more nonlocal it is, and the more identified, the less nonlocal. This might mean that a disidentified mind could catalyze disidentification in an identified mind. Thus, a disidentified

mind might make possible both the “Maharishi Effect” among meditators, and transmission from sage to disciple.

In *The Self-Aware Universe* (1993), Amit Goswami has suggested that, if the brain has a quantum part, nonlocal mind might be an effect of a Bell-Aspect type of correlation (see [Section 4.3](#) and [Chapter 7](#)). From this we might speculate that, if two people are initially in substantial mental agreement or alignment when they are in close proximity, their quantum brains might overlap, and a correlation might be established that could persist even if they became separated by large distances. Perhaps this correlation would be experienced as love.

Love, whether worldly or transcendental, always includes acceptance. Acceptance of Totality as it is in every moment is one of the characteristics of whole mind, as we shall see in [Chapter 19](#). Even in split mind, the more acceptance there is, the less separation and the more love (see [Chapter 24](#)).

Ardent transcendental love can be present even while the perception of separation still exists. An example is the all-encompassing love for Reality by the Reality seeker (see [Section 17.3](#)). This is Love seeking Itself. (See [Chapter 25](#) for a discussion of Love finding Itself).

Part 3. The end of suffering and the discovery of our true nature

Preface to part 3.

Let us quickly review the principles of nonduality that we have learned. Consciousness is all there is. This cannot be stated too often. The only value of this concept lies in the reality of Awareness to which it points. The manifestation is only a reflection or shadow of this Reality, which transcends both existence and nonexistence. All objects including the entire world of people and things are nothing but concepts. “I” as an individual do not exist ... and neither do any other objects. To see this is to be liberated from all suffering.

Now we come to the practical application of this course. Everything that has come before has formed a groundwork of concepts that we shall now use in ending our suffering and uncovering our true nature. The purpose of spiritual teachings is to help to make us aware of the experiences that validate the concepts that we have learned. Most teachings incorporate some kind of spiritual practice. There are hundreds of different kinds of practice, and each spiritual teacher will teach his or her own version. We have focused, and shall continue to focus, on only two teachings that are currently taught by jnanis in the West. One of them does not involve a practice at all. This is the deep understanding of the absence of volition, doership, responsibility, and the individual, as taught by Wei Wu Wei, Ramesh Balsekar, and their disciples. The other is the teaching of enquiry into our true nature and that of Reality, and variations of this teaching as taught by many teachers. Both are intended to cut through the paraphernalia and brambles that are characteristic of so many teachings and practices, to the essence and heart of all spirituality.

Chapter 17. How to live one's life

17.1. The problems with reading the scriptures

The title of this chapter misconstrues the living dream because we as individuals are not living; we are being lived. We are merely dreamed figures, and as such are being dreamed.

For the purpose of ease in communication, we shall often use the active voice as though there really are individuals doing something, rather than the passive voice, which is more appropriate for describing events happening spontaneously (causelessly). All spiritual sages and masters do this, but one must understand that it is only for convenience in communication and does not accurately portray what is happening. In fact, a common source of misunderstanding of the spiritual scriptures is this confusion. In many cases, the writings of the enlightened are descriptions of what is happening, not prescriptions for attaining enlightenment. Enlightenment cannot be attained by a doer, it can only happen spontaneously. A good example of this is the much-quoted Chapter II, Verse 47 of the *Bhagavad Gita* in which Lord Krishna (a manifestation of God) describes to Arjuna the essence of karma yoga, the yoga of action (as translated from Sanskrit by Ramesh, in *The Bhagavad Gita: A Selection* (no date)):

“All you can do is to work for the sake of the work. You have no right to the fruits of the work (the consequences of your actions are not in your control). But do not let this fact make you lean towards inaction.”

Ramesh explains that the proper interpretation of this verse is that nobody has the freedom to choose whether or not to work. There is no free will, and work merely happens spontaneously. Any fear that acceptance of this verse will lead to fatalistic inaction is unfounded because whether action is to occur or not is not up to the individual. [Note: When you read the *Bhagavad Gita*, your insight into your true nature will be much more incisive if you identify with Brahman (impersonal Being) rather than with either Lord Krishna (personal God) or Arjuna (the seeker)]. While we are considering this verse of the *Bhagavad Gita*, it is worth comparing Ramesh's translation with one by Maharishi Mahesh Yogi in *Bhagavad Gita: A New Translation and Commentary with Sanskrit Text* (1969):

“You have control over action alone, never over its fruits. Live not for the fruits of action, nor attach yourself to inaction.”

This is a good example of how radically different the meanings of two different translations are. From MMY's translation it would be difficult to extract Ramesh's interpretation even though both translations presumably come through enlightened beings. The lesson here is not only to distinguish between description and prescription, but also to be very cautious in reading any writings that have been translated. Any translation will inevitably convey the message that the translator wishes to convey. Of course, the danger here is much greater if the translation was made by an unenlightened person. This is a difficulty with most translations of the ancient scriptures (for example with Christian scripture, see [Chapter 12](#)).

It is possible that the two different translations may be a result of the two different audiences that Ramesh and MMY intended to reach. Ramesh had no interest in diluting or compromising

his message in order to reach a large audience, while MMY was interested in reaching the largest possible audience. Most people will not be interested in hearing that there is no free will, thus Ramesh's message inspires only a few, whereas MMY's message is welcomed by millions. (Again, of course, we must remember that both messages are part of the impersonal functioning of Consciousness, and neither Ramesh nor MMY is functioning as an individual.)

Another difficulty with reading spiritual writings is that most of them were written to be understood and accepted within the culture of the original audience. Because such cultures were usually vastly different from contemporary Western culture, reading translated spiritual writings has the additional difficulty that the spiritually meaningful must be separated from the culturally irrelevant. This is true not only for ancient scriptures, but also for the translations of relatively recent dialogues between sages and their disciples. One particularly misleading and aggravating example is that of Ramana Maharshi's concept of the Heart. Maharshi spoke frequently of the Heart, a term which he used to signify the Self. However, this causes no end of confusion not only for today's readers of his dialogues, but also for his original audiences. Because in ordinary speech, the heart usually refers to an organ of the body, people commonly tried to locate the Self as an object in the body rather than thinking of it as pure Awareness.

17.2. Whatever happens must happen

Since we are not free to choose our thoughts, emotions, or actions, why do things sometimes go our way? Because sometimes our decisions are in agreement with what happens. This reinforces our mistaken sense that we decided what we were going to do. At other times, no matter how determined we are to do something or not to do something, our actions are just the opposite. This merely causes guilt and frustration at our incompetence, lack of discipline, or lack of character. The truth in both cases is that neither our decisions nor our actions are ever in our hands, but are entirely spontaneous. An action will take place either with our sense of volition or without it, but the sense of volition will not affect the action. It will, however, affect our reaction. We will feel pride at what we perceive as our success, or guilt at what we perceive as our failure.

A good metaphor for this situation is given by Wei Wu Wei in his 1964 book, *All Else is Bondage*. A child rides in one of the toy cars going around a track at a carnival. The cars are confined to the track by the mechanism, so that the steering wheel has no effect at all. At first, when the car goes in the direction in which he is steering, the child thinks he steered the car in that direction. Then, when he steers in the wrong direction and the car does not go that way, he either becomes frustrated or learns that his steering has nothing to do with the direction the car is going in. If he learns this, he is a lot smarter than we who still think we have the power to do something.

With all this in mind, what can we say about how to lead one's life? In general, we can say two things. Since we are powerless to choose or to act, and everything happens spontaneously, it is clear that everything that happened in the past had to happen just as it did. Nothing about it could have happened in any other way. Really understanding this means that there can be no possibility of guilt, regret, shame, or blame for anything in the past, either directed towards oneself or anybody else.

The second thing we can say is that, since we cannot decide or choose our actions, everything

that happens must happen in the way that it happens. There is nothing that we should or should not do, and nothing that we should have or should not have done. This understanding helps remove any vacillation or indecision that is based on fear of making a mistake, since we know that mistakes are not possible. (It need not remove all indecision since there can be natural indecision not based on fear of making a mistake.) We then know that what we want as well as our choices and the outcomes of our choices all happen spontaneously and impersonally. When we become accustomed to the idea that we not only do not make decisions but cannot make them, and that decisions just happen, we can merely watch the decision-making process in action, and just wait and see what happens. We can then observe the chain of thoughts leading to a decision, and see the inevitability of each decision. A simple, practical way to summarize this approach is to just be aware that we are not doing anything. Most likely, no radical change in behavior will occur because in fact we have never done anything.

17.3. Meaning and purpose in life

Whenever good or bad fortune strikes, the thought may arise in the conditioned mind that there must be some meaning to it, particularly if a belief in God is also present. Thus, the event may be thought to reflect either God's favor or disfavor, and this can result in either pride or guilt. However, without a doer or a chooser, there can be no meaning at all. Thus, the world is intrinsically meaningless. Birth, life, good and bad fortune, and death all just happen, and have no meaning of their own. Any thought of meaning is just a thought that is not different from any other thought.

What can we say about purpose in one's life? The first thing we can say is that we never choose a purpose—purpose happens spontaneously as does everything else. If purpose must happen, it will happen, if not, it won't. With that said, we can also say that, while most people are unhappy if their lives seem purposeless, purpose is not static, and usually changes as one evolves. Initially, it is likely that one's purpose will be simply to find a better, simpler, more meaningful, more peaceful, more satisfying way to live, without all of the conflict, stress, and dissatisfaction that accompanies life driven by ego fears and desires. As one evolves, purpose may become more specific, and may narrow down to an all-consuming search for God, for the Self, or for Reality. The search then guides and determines where and what one does, from work, to rest, to vacations and holidays, to reading, to friends, to diet, to exercise, to spiritual practice. Every minute of one's life becomes dedicated to the search (at least one sage, Francis Lucille, says that awakening has already occurred when this has happened). Gradually, the realization grows that what one is looking for cannot be found outwardly, and identification weakens, suffering decreases, and the intensity of the search diminishes. Soon it matters little whether awakening happens or not. Then, spiritual seeking and the sense of personal doership both disappear, and the realization occurs that there never was an individual entity doing anything.

17.4. The death wish

Purpose can manifest in a multitude of forms, but one that is particularly deceptive is the death wish. When the death wish appears in an unaware person, it is usually interpreted as a wish for the destruction of the body, and he/she will try to suppress it out of guilt and because of the religious and cultural stigma against suicide. However, to suppress it is to throw away an

opportunity to understand it. A more aware interpretation is that the death wish is nothing more than a wish for the end of suffering. This end need not require physical death because the body is not the source of the suffering (although it is the seat of physical pain). As we have seen in [Section 11.2](#), the real source of suffering is identification with the I-concept, which results in the imaginary I-entity. Thus, the death wish is really a wish for disidentification and for the ensuing peace.

The stigma against suicide condemns as sin any attempt to escape from life, because religion regards life as a duty, burden, or sentence imposed on us by God. This is an example of the absurdity to which belief in a god created in the image of the ego will lead (see [Chapter 12](#)). Disidentification from the I-concept can occur without death (see [Chapters 20, 21, 22, 23, 24](#)), whereas disidentification from the body is death (see [Section 10.4](#)). Since the body itself is nothing but an inert mechanism, death has no intrinsic meaning (see previous section). Whatever state of spiritual awareness is present, life in extreme pain or depression can become intolerable. Even for the aware, physical pain can become so intense that the impulse to end it all will not be dismissed.

In 1980, Derek Humphry organized the Hemlock Society in order to inform those who are suffering from incurable disease of their options for release. His book, *“Final Exit”* (1991), is a how-to manual that discusses “the practicalities of self-deliverance and assisted suicide”. In the plaudits to the book, Isaac Asimov wrote,

“No decent human being would allow an animal to suffer without putting it out of its misery. It is only to human beings that human beings are so cruel as to allow them to live on in pain, in hopelessness, in living death, without moving a muscle to help them. It is against such attitudes that this book fights.”

Whatever the motivation, if suicide occurs, it need not be interpreted as failure. How can there be failure if there is no doer and there is no choice?

17.5. If suffering is to end, spiritual practice usually happens first

Whether or not you suffer is not up to you. Whether or not you engage in any kind of practice, and if you do, whether or not it works, is also not up to you. As we have said previously, awakening (and all other events) can only happen spontaneously. It can never be the direct result of imagined doership in any behavior or practice.

What can we say then about spiritual practice? First, if it occurs, it is because it must, not as a result of any decision that you make (although it may seem that way). Second, although there are isolated cases of enlightenment occurring without prior spiritual practice (Ramana Maharshi is an example), in the overwhelming majority of cases, much intense practice comes before enlightenment. However, it would be a mistake to expect that spiritual practice in itself will lead to awakening because there is an imaginary doer in all volitional practice and this doer itself is the problem.

If spiritual practice happens, its real value is that it can relieve your suffering. (Actually, because all events happen spontaneously, spiritual practice and the end of suffering are not causally related, but in the following we shall continue our discussion in the active mode.)

Let us recall what Galen Sharp says about why we are so unhappy (see the reference at the [end of Chapter 10](#)):

“Because not everything goes our way. Because we dread doing the things we don’t want to do, but have to do. And we can’t do many things we want to do. All this boils down to the fact that we feel we are a person with desires that conflict with our circumstances and responsibilities.”

Similarly, in the July 3 meditation in *A Net of Jewels* (1996), Ramesh says,

“Life presents problems because we fight life; we don't accept what-is in the present moment. We want to become something other than what we are. We want something other than what we now have.”

Suffering is a consequence of identification with the "I" (see [Section 11.2](#)). If we feel that we are limited, we will feel that we need to have control over what happens to us. But in fact we are limitless. We have no control but we need no control, including control over any of the practices mentioned in this course. So, why are the practices mentioned? If a body-mind is so conditioned that it allows a practice to happen, and if the thought of it is there, it might happen. If not, it probably won't (see [Sections 5.14, 18.4](#)). But, if a practice does not address the problem of identification with the "I", it will not relieve suffering. For this reason, we consider only practices that require investigating the "I". Clear seeing then shows that there is no "I".

In addition to making it clear that there is no I-entity and no doer, effective practices can quiet the thinking mind (see [Section 11.6](#)). This is necessary for the efficient functioning of the working mind. A quiet mind is also an end in itself since it is always accompanied by the peace of pure Awareness. In fact, this can be a guide to distinguish between effective and ineffective practices. If suffering is relieved by a practice, it is worth continuing. If it does not, and especially if suffering increases, it is better to discontinue it.

Effective practices help to disidentify from all forms of conditioning. Somewhat ironically, a quieter thinking mind initially allows unconscious conditioning (see [Section 5.14](#)), also called vasanas or latent tendencies, to rise to the awareness of the conscious mind. The thinking mind ordinarily represses unwanted thoughts, urges, and desires, which are the dark side of the ego (the shadow). When repression ceases, the shadow comes into awareness. Papaji (H.W.L. Poonja) described this by saying that, when you begin to awaken, all the gods and demons of your past come to reclaim you. Vasanas are no different from any other aspect of the functioning of Consciousness. It is just as possible to disidentify from them as from any other kind of conditioning (see [Chapters 21, 22, 23, 24](#)). The potential of vasanas to destroy one’s peace is minimized by the deepening realization that their release represents the dissolution of the thinking mind.

Another important point about spiritual teachers and practices must be made. We must keep in mind that our true nature is characterized by the absence of the sense of personal doership and responsibility. This cannot be realized if we engage in any practices that require our doing something without seeing who the doer is that is doing it. Therefore, any other dos and don’ts, or shoulds and shouldn’ts, given to us by a spiritual teacher must be a warning that that particular teacher may not be Self-realized, and cannot help us to end our suffering. There are

far more teachers in this category than there are who genuinely realize their true nature, and who would never try to impose a regimen that would increase our sense of bondage. The world of spiritual materialism is a vast marketplace of tricksters, magicians, clowns, performers, entertainers, hucksters, and money seekers, most of whom are deluded into thinking they are free, and who disguise themselves in their own fantasy versions of divine garb and persona.

Particularly destructive among the self-deluded spiritual teachers are those who teach that only they and their personal power can bring freedom, or that they are the ones best suited for the task. They would merely strengthen the chains of our bondage. No genuine teacher will imply that we need anything or anyone, since we are already free and complete. A teacher's function is to convey this to the student, and to help him or her to see that. A teacher is at best an invaluable resource to the student, and at worst, a "false prophet", the deluded purporting to teach the deluded, the blind trying to lead the blind.

17.6. The rarity of enlightenment

It is appropriate to say a few words about the probability that awakening will occur in any particular body-mind organism (it would be incorrect to say that awakening occurs to an individual, since awakening is the understanding that there is no individual). For this purpose, Ramesh is fond of quoting Chapter 7, Verse 3 from the *Bhagavad Gita*. In this verse, Lord Krishna says to Arjuna,

"It is perhaps only one in thousands of beings who strives for freedom. And among those who strive—and think they have succeeded—hardly one knows the total Truth of My Being."

It would be impossible to determine how many enlightened beings there are in the world, but this passage may be a guide. The verse says that only one in thousands are even seekers. For example, of the current population in the US of almost 300,000,000, there may be a few hundred thousand seekers. Of these seekers—who in addition think they are enlightened—hardly one knows Reality. This is a very vague statement, but perhaps it means another factor of 1000 down. If so, it would mean there are fewer than a thousand truly enlightened beings in the US. From my own observations and experience, I would be surprised if the actual number exceeded that.

This is an indication of the rarity of enlightenment. To the seeker, this might be depressing, but in response to that, Ramesh has said the following:

"Whether you are a seeker or not is not your choice. Whether enlightenment happens in that body-mind organism or not is also not your choice. So continue to do what you think you have been doing, within your own standards of morality and discipline, and enjoy life" (Composite of many statements in *Your Head in the Tiger's Mouth*, 1998)."

"Enjoying life to me means accepting whatever is, sometimes happiness, sometimes unhappiness", (*Echoes of Consciousness*, video tape, 1999)."

For more discussion of acceptance, see Chapters [19](#) and [24](#).

In the meditation of February 15 in *A Net of Jewels* (1996), Ramesh says,

“The surest signs of spiritual progress are a lack of concern about spiritual progress and an absence of anxiety about liberation.”

17.7. Enlightenment is rare and happiness is fleeting, but peace is neither

Because enlightenment will happen in only one out of a million body-minds, teachers who talk about enlightenment without offering practices to diminish suffering do a disservice to their students. (They also do a disservice if they teach that enlightenment can be achieved through practices.) Although enlightenment is rare, the end of suffering need not be. It will end when it becomes apparent that striving for either enlightenment or happiness is futile because enlightenment is not a thing that can be achieved, and happiness, like everything else in the world, is fleeting. However, peace is neither enlightenment nor happiness. It underlies happiness and unhappiness, excitement and boredom. It is joy that is not of this world. It is the state of “who cares?” that exists prior to enlightenment. (See Ramesh’s 1999 book, *Who Cares?*, p. 132. See also [Section 20.2](#).) Peace requires disidentification, some practices for which are described in Chapters [20](#), [21](#), [22](#), [23](#), [24](#).

Chapter 18. Practices and teachers

18.1. Why practice?

Suffering is intrinsic to the dream because of the perception of pervasive conflict and potential war between the split pairs. From the point of view of the individual, the purpose of all spiritual practice is to awaken from the dream of suffering. Since the basis of all splits is the ego, or illusory “I”-entity, awakening means to see that there is no “I”-entity. However, expecting the ego to see this is like asking something that does not exist to see that it does not exist. Spiritual practice does not get rid of the ego because there is no ego to get rid of.

Awakening can only happen by seeing from outside the split that there is no split. Since the essence of the ego is the false sense of personal doership, awakening means to see that there is no doer, there is no choice, and there is no responsibility. Paradoxically, awakening is usually preceded by considerable effort but it is never that of a doer. For practice to happen, intense earnestness and intention are also usually necessary. (Of course, if they are supposed to happen, they will. If not, they won’t. There is nothing you can do to make them happen.) An immediate and lasting benefit of practice is that, even before awakening, suffering decreases, and the experience of reduced suffering and greater peace is inspiration for further practice and progress.

One misconception that is common among beginners on the spiritual path is that suffering and sacrifice in themselves are useful spiritual practices. (This is undoubtedly reinforced by the biblical story of Jesus suffering for our sins, and the suffering of the Christian martyrs.) Nothing could be further from the truth. Since separation is the basis of suffering, seeking to suffer in the hopes of finding spiritual truth in it can only increase the sense of separation, and thereby increase suffering. Only the individual can suffer. The one good thing about suffering is that its

presence tells you that you are still identified, and a keen examination of it will tell you with what you are identified. In this way suffering is actually your guide to freedom from suffering. **Every instance of suffering is another opportunity to disidentify.** The path away from suffering is the path towards liberation.

18.2. The importance of being aware

You are not an individual; you are pure Awareness (see Sections [9.3](#), [11.7](#)). It is because you transcend the ego that you can see that it does not exist, and you can be aware that the effort to see that it does not exist is not your effort.

Bondage and suffering are due to identification of Consciousness with the I-concept and all of its trappings, resulting in the illusory “I” and all of its problems. To be effective, any practice depends on the increasing awareness of these identifications. For this reason, a spiritual practice is better termed an awareness practice. When the seeker understands that suffering is the direct result of identification, there is a strong incentive to become aware of it. Thus, becoming aware of the connection between a specific suffering and the identification from which it springs is a valuable, even necessary, awareness practice and is the first step in becoming disidentified and free.

We saw in [Section 11.2](#) that we can distinguish between three levels of identification. The first is identification with the body-mind organism, but without entitification, i.e., without any sense of individual identity. This identification is necessary for the organism to function and survive, and causes no suffering because there is no entity to suffer. We are not concerned with this identification in this course—in fact, it is the state of being awakened. The second level is identification with the I-concept, which produces the illusory entity with a sense of personal doership. The third level is identification with various thoughts, images, and emotions, resulting in the sense of ownership of them, so they become “my” thoughts, “my” self-images, “my” emotions, and “my” suffering.

Disidentification at the third level means disidentification from all thoughts, images, feelings, and emotions that cause suffering. This is the key to the beginning of the end of suffering. Disidentification does not mean repressing or suppressing anything, only realizing that identification is the source of our suffering. This can happen while still retaining the image of the self as doer. Thus, at this level, it is unimportant whether the seeker still thinks of him/her self as the doer.

The first step in disidentification at the third level is to use a specific experience of suffering as the impetus to become aware of the real source of that suffering. For example, if I feel victimized by thinking that somebody has done something to me, my first step is to become acutely aware of the feeling itself and of the images that arise in my mind. As was discussed in [Section 11.4](#), the feeling of being victimized always comes from seeing an image of myself as being helpless, and another image of the victimizer as having some kind of power over me. Neither side of the polar pair can exist without the other. Projection of the victimizer image onto the other person then causes me to think of that person as a victimizer.

Now, where does this feeling of helplessness, which is the essence of feeling victimized, come from? It may come from the thought that there is something “wrong” with “me” for being so

helpless. Thus, we see that this experience of suffering may have as its roots identification with a self-image of inadequacy, plus a negative judgment about it. (Clearly, inadequacy implies a doer that is inadequate. Without the concept of doership, there could be no victim and no suffering, not to mention no victimizer. But imagined doership is the problem in identification at the second level.)

There are two important lessons to be learned from this example. The first is that the image I see in my mind of myself as victim means that I cannot be the victim! I am what is looking at the image, so I cannot be the image! This is the most fundamental step that anybody can take in disidentification. **Whatever I am aware of cannot be me because I am what is aware!** This one realization is enough to produce a gigantic crack in the bonds of identification.

The second important lesson is just a generalization of the first. Since nothing that I see can be me, there is no object, thing, or entity that can be me. **I am not a person, not a mind, not a body, not a being, not a thought, not a feeling, not an emotion, not an image, not an observer, not anything. And most importantly, I am not a doer, not a thinker, not a decider, and not a chooser.** Now we have progressed to disidentification at the second level.

If I am not anything, then what am I? The answer is simple: I am the pure Awareness that is aware of all things. What could be more simple, and yet so profound and so liberating?

18.3. Some sages and the practices they teach

There are innumerable types of awareness practice, covering a broad spectrum, and different spiritual masters teach different types. Ramesh Balsekar (who lives in Bombay, India) and Nisargadatta Maharaj (who lived there also) are at one extreme of the spectrum, and teach that any effort by the individual to achieve something will only reinforce the sense of personal doership, which is the essence of the individual. The “achievement” that is the goal is the disappearance of the sense of personal achievement, and this cannot be achieved by any personal efforts. They teach that understanding the absence of personal doership is of primary importance, and, indeed, it is the spontaneous deepening of this understanding from the intellectual level, to the level of intuitive seeing, to the level of awareness of our true nature, that is the process of liberation.

Ramesh, however, does teach that, in order for the understanding to deepen, it is necessary to see its validity in one’s own experience. This is a practice, but one that does not reinforce the sense of personal doership (see, e.g., his 1998 book, *Your Head In the Tiger’s Mouth*). He recommends simply to watch and see that all decisions and doing come completely spontaneously, so there can be no decider or doer. Ramesh also emphasizes the acceptance of, or surrender to, what-is as a spontaneous effect of the disappearance of the sense of doership.

Ramesh, on pp. 170-171 of *The Final Truth* (1989), divides spiritual aspirants into three classes: a) the advanced ones who require only a simple teaching about the nature of identification and of the individual in order to realize the Self, b) the not-so-advanced ones who require some effort and time before realization (although this effort, as always, is never by an individual), and c) those who require many years of spiritual instruction and practice before realization. For the first class, no awareness practice is necessary. Just receiving the proper

teaching, in one form or another, is sufficient. The third class of aspirant is the one for whom an interest in awareness practice has just begun. These people have just realized that “there must be a better way,” or “there must be more to life than this,” and they must seek and find the practices that are right for them.

For the intermediate class described above, Ramesh sometimes mentions the practice of enquiry, which Ramana Maharshi taught in Tiruvannamalai, India. This is a “direct approach” because it directly confronts the only problem that exists, that of the illusion of the individual. The investigation into the existence of the individual is a practice that avoids reinforcing the concept of the individual, and leads to the direct realization that there is no individual.

In the meditation for November 15 in *A Net of Jewels* (1996), Ramesh says,

"The hazard of any kind of disciplinary practice or meditation is that the means and the end generally get utterly confused. Some seekers end up in frustration when they find that long years of such practice have brought them nothing, whereas others may go along the Pathless Path and reach the Destination Which Is No Destination almost effortlessly, while yet others fall by the wayside having mistaken some puerile spiritual power as the ultimate goal. The subtle and fundamental fact that is most often missed is that the means and the end are one and the same, and that the only means to Truth is Truth itself -- Understanding is all."

Several contemporary sages teach enquiry. Both Poonjaji (also called Papaji, now deceased) of Lucknow, India, and Nome, of the SAT (Society of Abidance in Truth) ashram in Santa Cruz, CA, teach their own versions of it. Poonjaji considered himself to be a direct disciple of Ramana Maharshi (although Ramana Maharshi claimed that he had no disciples), while Nome awakened through studying Ramana Maharshi’s teachings. Russell Smith, who, with Nome teaches at SAT, was a student of Ch’an (Chinese Buddhism, which was the forerunner to Zen Buddhism, see [Section 12.7](#)) as well as of Ramana Maharshi’s teachings. Gangaji, of Novato, CA, is a direct disciple of Poonjaji, and she teaches his version of enquiry. At times, Nisargadatta Maharaj, who was Ramesh Balsekar’s guru, taught enquiry and at other times did not, depending on the state of consciousness of the student. While Ramesh describes enquiry in detail in *The Final Truth*, he rarely mentions it in his later books, and he only occasionally suggests it as a practice in his seminars because he prefers to emphasize the understanding and how it deepens. However, he often uses it himself in his dialogues by asking, e.g., Who is asking the question? or, Who is seeking? to emphasize to the disciple that there is no “you” that can do anything.

The purpose of enquiry is to question the existence of the “I” and to focus the attention on our true nature (pure Awareness). This ultimately may result in disidentification from the “I”-concept, and the realization of our true nature. If this shift happens, it is experienced as the sudden awareness of the absence of the “I”-entity, and the disappearance of separation and suffering. Enquiry was discussed briefly in [Section 10.2](#) and will be described in more detail in [Chapter 22](#).

Ramana Maharshi taught that there are only two practices that are effective in preparing for the disappearance of the individual--enquiry (the path of the jnani) and surrender (the path of the bhakta) (see [Section 10.3](#)). Whereas Ramesh teaches that surrender is equivalent to

acceptance of what-is (see [Chapter 19](#)), Ramana taught that surrender could include devotion to the guru, who, because there is no entity, in reality is none other than the Self. In fact, while bhaktas may find that their devotion is directed initially to the guru, they later see that it becomes an expression of all-encompassing, divine love (see [Chapters 16, 19, 25](#)).

Terence Gray, a sage, Irish aristocrat, and scholar who wandered the Himalayas before his death in the 1980s, published several important books under the pseudonym, Wei Wu Wei. His books, like Ramesh's teaching, emphasize the importance of the deep understanding of the absence of volition and of the "I". Ramesh has stated that he has read one of Wei Wu Wei's books, *Open Secret* (1970), at least a hundred times (*Consciousness Writes* (1998) private distribution). I have found that *Open Secret* and another one, *Posthumous Pieces* (1968), are both extremely powerful and succinct metaphysical pointers to Reality.

In addition to enquiry, Ramana Maharshi and many other masters teach meditation as an awareness practice. There are myriad techniques for meditation, but from our previous discussion, we can say that if meditation is to be fruitful, it must lead to the disappearance of the sense of separation, and therefore must question the existence of the individual and/or look for one's true nature.

There are many other practices. A course like this is best suited principally for obtaining an initial understanding of the metaphysics of nonduality, which itself is an awareness practice, and for becoming familiar with the practice of enquiry and its variants. Further evolution will occur during a possibly lifelong journey that may include other practices as well. At some point in the journey, most people find that association with a Self-realized master is necessary for further progress.

18.4. Who or what is it that practices?

The nervous system's conditioning is analogous to the programming of a computer (see [Section 5.14](#)). All of a body's actions are governed by the conditioned nervous system's responses to stimuli, and every new stimulus adds to, or modifies, the existing conditioning. A stimulus may arise from the nervous system (internal stimulus), or it may come from outside (external stimulus). An internal stimulus can come from conscious memory, from unconscious conditioning, or from instinct. An external stimulus can come in the form of an interaction with a person, object, or event, or it can come through nonlocal mind (see [Section 5.2, 14.1, 14.2, Chapter 9](#)). An exceedingly important part of nonlocal mind is spiritual intuition, which is the link between the mind and Reality. (Spiritual intuition is what drives the individual to seek to know Reality, see [Chapter 16](#) and [Section 17.3](#)).

Many people become confused when they are told at one moment that there is nothing they can do, and at the next moment that they may benefit by following certain practices. Naturally they ask, If they can do nothing, who or what is it that practices? The answer is that nobody practices because there is doer to do it, but in most cases, if practice is to happen, the thought of it must be in the brain-mind first. This must usually come from outside the brain, and that is the function of a teaching like this. If the idea is received and is compatible with the brain's conditioning, practice may happen. If not, it probably won't. This is no different from any other type of behavior. You have never done anything because there is no you to do it.

18.5. Some possibly helpful tips

At this point, I will list some observations I have made about teachers and practices. However, be warned that this is not science, and others may disagree, so you should make your own observations and draw your own conclusions.

1. Teachers teach what worked for them. It may not work for you.
2. It is unlikely that a teacher who has never engaged in awareness practice will be able to suggest an awareness practice to help you to end your suffering, no matter how genuine his enlightenment. (An exemplary exception to this was Ramana Maharshi.) The same thing is probably true of a teacher who has never suffered to any significant degree.
3. Some practices can and do relieve suffering, even though they may not lead to enlightenment. An analogy is that aspirin may relieve a headache even though it may not remove the cause. (Of course, we must remain aware that it is not the practice that relieves suffering. If suffering must stop, it will stop, though practice usually precedes it.)
4. At some point, disidentification requires going inward far enough to be able to see every object of awareness. It then becomes clear that you are not an object of awareness, but pure Awareness itself, as discussed in [Section 18.2](#) above. This may have to be repeated many times.
5. The teachings of teachers who have responsibility for managing and maintaining ashrams or spiritual centers are likely to be aimed at a larger audience than those who do not, because supporting an ashram requires large amounts of volunteer effort and substantial financial commitments from the disciples. Consequently, such teachings will generally be designed for maximum acceptability. Even teachers who have only small followings, but who depend on their contributions for survival, sometimes will color their teachings to avoid losing their followers. On the other hand, the purest teachings usually come from teachers who are not surrounded and supported by followers or an organization. A good example of such a teaching is Wei Wu Wei's books, which focus on one point and one point only—the absence of the individual "I". As a teacher, he led an obscure life, and his books have never had a wide audience. Compare him to Sai Baba who has many tens of thousands of disciples and several ashrams, and who utilizes materializations to attract attention. His teaching emphasizes discipline and selfless service (karma yoga). This is more acceptable and understandable to large numbers of people than is the teaching that there is no individual.
6. In the course of investigating various spiritual teachings, the seeker will find that a teaching and teacher must be acceptable if they are to be helpful. The natural inclinations of each personality will self-select between the enormous variety of teachings and teachers. A person who is naturally service oriented will probably be moved to do karma yoga in an ashram or spiritual center. A person who is devotional by nature will probably find a teacher who can symbolize God for him or her. The intellectual will probably be drawn to a jnani whose intellect matches his or her own. Of course, personalities come in all forms and mixtures, so who will be attracted to what or whom is an individual matter. Furthermore, a particular teaching and teacher need not be a lifetime choice for a person. As Ramesh says, it is perfectly all right to shop around and to go "guru hopping."

7. Very few teachers give their teaching a metaphysical basis. Of the ones that I know, only Ramesh and Wei Wu Wei consistently do. For those who appreciate metaphysics, its logical and intellectual structure makes the teaching more understandable and therefore more acceptable. For that reason, a teaching with a metaphysical basis is generally more suitable for an academic course than one without it. However, this in no way implies that a metaphysically based teaching is best for everybody or even for most.

8. The occurrence of awakening in a body-mind organism leaves the conditioning of the organism essentially the same. In other words, the basic personality is unchanged by awakening. Hence, if the organism was “not nice” before awakening, it also will probably not be nice after awakening. If it had a lust for power before, it will probably also have it after. If it was not a good teacher before, it likely will not be a good teacher after. This makes finding an acceptable teacher all the more difficult. However, all genuinely enlightened beings have compassion for all of their fellow beings because they see no separation between them.

9. Some teachers, including both a bhakta like Gangaji and a jnani like Francis Lucille, emphasize the value or even necessity of spending time (sometimes called darshan) in the presence of the guru in order for transmission to occur. To a skeptic like me, this sounds too much like a guru full-employment program. Other teachers, particularly jnanis like Russell Smith and Nome, say the presence of the guru is not necessary because transmission can add nothing to our already complete true nature. My own intuition is that, if the necessity of being with a guru seems like a “should” to you and feels like an obligation, it will not help you and will only increase your suffering, but if it feels like an opportunity to stop stagnating and to experience more clarity, it will help you towards liberation. If it is a mixture, just remember there is no “you” who ever decides anything.

10. Some spiritual organizations require secrecy pledges and/or teach proprietary systems of thought and practice. While proprietary techniques may yield some benefit, one suspects that exclusionary policies are designed more for the power and privilege of the teacher than for the enlightenment of the student. Such strictures seem contrary to our intrinsic freedom, and there are plenty of legitimate teachers who do not impose them. Your true nature cannot be a secret, and Self-realization cannot be bought or sold.

“I”, and therefore the concept of “I” is strengthened by them. Instead, he emphasizes the importance of seeing that there is no doer and there is no choice. He frequently quotes his guru, Nisargadatta Maharaj, who liked to say, “Understanding is all.” Among contemporary teachers of nonduality, his emphasis on the absence of the doer is taught only by his own enlightened disciples.

Understanding necessarily begins at the intellectual level. In order for it to be accepted so that it can deepen to the intuitive level, it must be seen to be valid. This requires the seeker to watch and see directly whether decisions happen spontaneously or whether he/she is making them. Likewise, the seeker must see firsthand whether thinking or doing are spontaneous or whether there is a thinker or doer. This is the only practice that Ramesh advocates, and of course, it will happen if it must, and if not, it won't. It is a form of enquiry, which generally can be described as looking to see directly what-is. Enquiry will be discussed more thoroughly in [Chapter 22](#).

Ramesh mentions frequently that, for as far back as he can remember, two notions were always with him: 1) the world is illusory, and 2) everything is determined. Because of this, understanding must have come quite naturally and easily for him. Such may not be the case for others. Direct understanding requires a degree of disidentification from one's thoughts and feelings that is not often found. Much more common is the case in which identification is so strong that disidentification simply by understanding seems impossible. That is why Ramesh encourages the seeker to see directly whether or not there is a doer. That is also why most teachers of nonduality emphasize enquiry as the most effective practice, at least for individuals on the jnana path. For those on the bhakti path, teachers of nonduality will foster love and devotion to the guru, but they will do so only when it is clear to the devotee that guru, God, and Self are the same. Such is the case with Papaji (now deceased) and Gangaji, both of whom were bhaktas before awakening, and who tend to attract bhakta devotees.

There is no difference between acceptance of what-is and surrender to what-is because both imply disidentification from doership. Acceptance of what-is is the absence of resistance to all thoughts, feelings, emotions, sensations, perceptions, and actions (see [Chapter 24](#)). Resistance to what-is is the judgment that it should not be this way, and that you can do something to change it. Resistance reinforces the idea of separation and prevents us from seeing that there is really nothing but Consciousness. Therefore, suffering always accompanies it. Ramesh says, "If you do not accept, you will suffer" (*Your Head In The Tiger's Mouth* (1998), p. 25). This understanding allows acceptance to occur spontaneously during a period of suffering. It often arises in the form of giving up or letting go when it becomes clear that resistance only prolongs the suffering.

A subtle form of resistance to what-is is concealed in the hope that suffering will end at some time in the future. This is merely an aversion to the present moment and it prevents us from realizing peace now, regardless of whether or not there may be material improvements in the future. The future is nothing but a concept (see [Section 14.1](#)) so nothing can happen there. If suffering is to stop, it must stop now.

Ramesh also speaks of witnessing, which is Awareness without identification with doership. In resistance, there seems to be a "me" that is resisting, while in witnessing, there is no "me" and no witness. Thus, we can see that awakening, witnessing, acceptance, surrender, and disidentification are all equivalent to each other, while resistance, doership, and identification

are also equivalent to each other.

Prior to awakening, witnessing consists of a sudden, spontaneous, temporary transition from the ego's involvement and identification with thoughts and feelings to noninvolvement, disidentification, and absence of resistance. In this case, witnessing occurs only for a brief instant, during which, there is no observer or witness. These events consist of sudden, intemporal interruptions of the temporal thinking process, i.e., they come from outside of time. After awakening, there is permanent disidentification and noninvolvement, continuous witnessing without a witness, and abidance in pure Awareness or the Self. Therefore, true acceptance, surrender, disidentification, and witnessing cannot be practiced but can only happen nonvolitionally.

Occasionally, Ramesh speaks about "the mind watching the mind". Whenever this happens, there is still the sense of an observer present (see [Section 22.2](#)) who is watching the thoughts of judgment, fear, or desire, so there is still identification. Nevertheless, each time this happens, identification has weakened, and as the understanding continues to deepen, suffering continues to decrease.

Acceptance is discussed further in [Chapter 24](#).

Chapter 20. Disidentification through understanding (I)

20.1. The role of concepts in spiritual teachings

Simply stated, Advaita teaches that Consciousness is all there is. The reality of Awareness is not a concept. Everything else is.

The unreality of all concepts is powerfully stated in the often-quoted words of Ramana Maharshi:

There is neither creation nor destruction,
Neither destiny nor free will,
Neither path nor achievement;
This is the final truth.

We remind the reader that, as we said in [Chapter 12](#), concepts in spiritual teachings are used as pointers to Reality rather than as a description of Reality. In practical terms, this means that the function of a concept is to facilitate disidentification. This results in a sense of freedom and peace, and in release from suffering. This is its only function. If it fails to do that, the concept is useless at best, and worse if it strengthens identification. Hence, a concept is not to be clung to if it does not work. An analogy often used by spiritual teachers to illustrate this point is that a concept is like a finger pointing to the moon (Reality). When one sees the moon (when awakening occurs), the finger is forgotten.

A common mistake among spiritual seekers is to regard the concept itself as truth, and thus to cling to it. This is like worshipping the finger rather than looking at what it is pointing to. In doing so, the ego averts a threat to its existence. For example, religion is worship of the finger because it regards the concepts as truth (see [Chapter 12](#)). The polar opposite of this

mistake is to look at the concept, to disregard what it is pointing to, and to resist it as a concept rather than to see it as a pointer. Again, the ego averts a threat to its existence. Most materialists and many scientists make this mistake.

Different spiritual teachers use different concepts, but always for the same purpose. A seeker is usually drawn to a teacher who uses a conceptual system that is acceptable to him/her in some way. Acceptability usually means that the concepts are consistent with the seeker's intuition and experience. However, as a seeker matures, the concepts used by a teacher may be less and less useful for disidentification. Indeed, they can even begin to generate more suffering than they relieve, because they can begin to produce more and more conflicts with the seeker's intuition and experience. In such cases, the seeker scarcely needs to be told to abandon the teacher. However, this can be easier said than done if the seeker has developed a strong personal relationship with the teacher, or if the seeker is deluded by the teacher into thinking that staying with him or her is the only way to salvation. This kind of delusion is responsible for the many stories of seekers having clung to a teacher long after the teacher's usefulness has faded. Probably the best attitude to take towards spiritual teachers is to use them as resources, without regarding any one of them as one's only avenue to salvation. The spiritual marketplace is no different from the commercial marketplace in this respect, so, even here, the guiding rule is *caveat emptor*.

20.2. Ramesh's use of concepts to foster understanding

Ramesh's teaching depends almost entirely on the use of concepts to produce an understanding which is at first intellectual but which gradually deepens until it becomes a deep intuitive conviction and inner awareness. He advocates practice only in a very limited way, and when he does, it is usually simply to validate the teaching within one's personal experience by watching to see whether there is free will or not. The understanding spontaneously deepens when it is seen first hand that all decisions are spontaneous.

When concepts come from the guru, they have an authority that is absent when coming from an ordinary person. The guru's use of concepts is illustrated by the metaphor of a thorn used to remove a thorn (see [Section 13.5](#)), after which both thorns are thrown away. Thus, the only value a concept has is to help the seeker see that he/she does not exist. The disidentifying concept is not Truth in itself, but is merely a tool for revealing Reality.

Ramesh teaches that concepts are not to be turned into mechanical, ritualistic practices because at best this would be useless and at worst it would only reinforce the sense of personal doership. This becomes clear when it is realized that mechanical repetition stifles awareness rather than fostering it. The concepts are to be heard or read and understood, after which the understanding deepens through personal experience of their validity, and becomes a form of conditioning (see [Section 18.4](#)) that spontaneously arises and cuts off a chain of thoughts with which the mind has become involved and identified. Of course, the individual is not to intentionally avoid thinking the concepts, either. The point is simply to be aware that everything, including any individual sense of volition, happens purely spontaneously.

Ramesh frequently talks about the mind becoming involved with thoughts in a way that reinforces and perpetuates them, and thereby causes suffering. He terms this the "horizontal" involvement of the mind with the thoughts, horizontal referring to occurring within time. (He

refers to the spontaneous appearance of a thought from outside of time as a “vertical” appearance.) For example, a common experience is one in which a stimulus, either external or internal, causes an unpleasant memory to appear in the mind, triggering the same emotions again. The mind becomes (horizontally) involved with the experience, which is replayed over and over with the purpose of self-justification. This involvement is equivalent to what we called identification at the third level in [Section 11.2](#). The mind takes possession of (identifies with) the victim image and all of its attributes of aggrieved innocence, helplessness, and self-righteous anger. Ramesh and Nisargadatta Maharaj also call this “taking delivery” of a thought.

Ramesh teaches that this horizontal involvement, or identification, stops when some form of understanding of the teaching subsequently arises spontaneously (vertically) and cuts it off. The understanding can take the form of a concept or feeling, or simply the sudden awareness that the mind has become involved and is causing suffering. As the seeker matures, the involvement becomes cut off earlier and earlier, until it arises only momentarily before it is cut off. This is the stage just prior to awakening, and is described by Ramesh as the “who cares?” state (see p. 132 of Ramesh’s 1999 book, *Who Cares?*).

20.3. Understanding happens faster with enquiry

For a few seekers, merely hearing the right words from the right teacher is enough to catalyze deep understanding and awakening. However, those seekers are rare, and for most people, active enquiry is necessary to see what the words mean. This enquiry can take the form of questioning the teacher, which is what happens in satsang, or it can take the form of inner questioning and observation. Enquiry is a scientific investigation into what is true and what is not. It is scientific because it is based on observation, and both the method and the results can be communicated to others who can then verify them for themselves (see [Section 1.1](#)). More accurately, only what changes and therefore what is unreal can be observed and communicated, while what is Real does not change and therefore cannot be observed or communicated. Nevertheless, through enquiry it can be known to be true. Enquiry is discussed in detail in [Chapter 22](#).

Chapter 21. Disidentification through understanding (II)

21.1. What is understanding?

Understanding starts with a concept, such as the concept that nothing exists, and proceeds to seeing directly that no object is real.

In the meditation for June 21 in *A Net of Jewels* (1996), Ramesh says,

"Although it can be seen, the universe is nonetheless purely conceptual and has no actual substance or reality of its own. All phenomena are nonexistent by nature. Other than the primal Absolute subjectivity in which all exists, nothing in fact does exist!"

In the meditation for June 29, he says,

"See the false as false, and what remains is true. What is absent now will appear when what is now present disappears. Negation [seeing the unreality of phenomena] is the only answer to finding the ultimate truth--it is as simple as that."

And in the meditation for September 22, he says,

"All human problems arise only because the basic fact of phenomenal manifestation is ignored - that the entire manifestation is merely conceptual. Nothing is created, nothing is destroyed. All questions pertaining to birth, life, death or rebirth are therefore utterly misconceived. WHAT IS is truly simple. We only make it complicated and incomprehensible by thinking and philosophizing about it."

There is nothing but Consciousness. Appearances arise spontaneously and impersonally in Consciousness. With the appearance of intellect, concepts arise spontaneously. Thus far, there is no suffering. When Consciousness identifies with concepts, they seem to become real. We then refer to them as objects. However, it is Consciousness that is real, not objects. We think of an object as having its own existence, separate and independent from its observer, who also is conceived of as existing as a separate object (see [Section 11.2](#)). However, without identification, there may be concepts within Consciousness but there can be no objects. That is the state of the sage, who sees that all objects are nothing but Consciousness. Gold trinkets are nothing but gold ([Section 13.7](#)) and ocean waves are nothing but water ([Section 13.4](#)).

Concepts can never be real because all concepts change, and Reality never changes. However, concepts can be true, meaning that they can negate concepts that are untrue. Untrue concepts are those that assert and maintain the reality of objects, such as the world, the individual, and the body, either explicitly or implicitly. A primary purpose of this course is to see the unreality of all objects. In this way, Reality is uncovered and becomes Self-evident.

Direct seeing reveals that what seems to be real is not, so realization of What-Is can arise. Direct seeing is the main thrust of Wei Wu Wei's books, which tend to point out what is not true rather than vainly attempting to say what is true. (For example, see his 1968 book entitled, *Posthumous Pieces*, and his 1970 book entitled, *Open Secret*. Both are excellent.)

21.2. The use of direct seeing to disidentify from doership

We have seen in [Section 5.9](#) that everything that happens must happen before we can become aware of it. This means that we can do nothing. Ramesh often states that there is truly nothing that you can do since there is no you to do it (see, e.g., his 1998 book, *Your Head in the Tiger's Mouth*, pp. 311-12). (Of course, this also means that there is nothing that anybody else can do, either.) He frequently says to do what you want to do because neither your wants nor your doing are yours.

In any present moment, we can see that there is no doer (see [Section 22.2](#)). Why do we then think that we can do something? We think so because of identification at the second level, which is identification with doership (see [Section 11.2](#)). Identification with doership is identification with the past and future, because it means that "I" have done something in the past, and that "I" can do something in the future. Thus, "I" feel regret, guilt, or shame for what "I" have or have not done; and "I" feel worry, anxiety, or fear about what "I" can or should do. Consequently, "I" suffer.

21.3. The use of direct seeing to disidentify from the "I"

Identification at the third level (see [Section 11.2](#)) produces suffering from myriad unpleasant emotions in addition to those from doership. All suffering, from both levels, stems from identification with the limited "I". Thus, all suffering ends when identification ends. When this occurs, all that remains is the true I, which is seeing itself, pure Awareness, our true nature.

Direct seeing shows that you are limitless (see [Chapter 22](#) and [Section 24.6](#)). Thinking that you are limited is suffering, and you will suffer until you see that you are not. If you think you are limited, the dream ([Section 13.1](#)) is a nightmare. If you know you are not, the dream is only what it is. In the metaphor of [Section 13.5](#), the thorn will hurt until you realize that there is no thorn by investigating it (by probing the thorn with other thorns and seeing what happens).

Eventually, as identification weakens, the suffering will fade away, leaving an absence that is felt as the presence of freedom and peace. Even initially, there may be a sense of freedom, if only dimly felt. This is an early result of disidentification, but the more you disidentify, the greater will be your peace.

21.4. Because there is no "I", there is no other

Because the "I" is seen as being separate, there also appears the not-"I", separate from the "I". Repeated conceptualization of the not-"I" and belief in its existence then creates the illusion of massive fragmentation and myriad separate objects, with the "I" being separate from each. As we saw in [Section 11.4](#), we suffer from helplessness and hopelessness when we believe we are victims, and we suffer from hatred and outrage when we believe there are victimizers. To be free from this suffering, it is helpful to see that, not only are we not victims (there is no "I") but also that there are no victimizers--there is no other. Hence, "victims" and "victimizees" morph and change because they are nothing but mental images. This is true because, as we have seen, there is no objective reality (see [Chapter 9](#)). This life is nothing but a dream ([Section 13.1](#)).

We can see this by seeing the true nature of any object, not just the "I"-object. One way is to follow the reasoning of [Section 9.2](#) and see that separation and naming are purely conceptual operations, and to look without conceptualizing at the reality underneath. When the body and the world are looked at in this way, it gradually becomes apparent that they are nothing but mental images and are not as solid as they seem. Their transparency reveals their unreality at the same time that it reveals the reality of the background from which they arise. (Enquiry also reveals this--see [Section 22.4](#)).

Particularly helpful in seeing that all objects are unreal is to realize that, for all of your efforts to get lasting satisfaction, contentment, happiness, or peace from the world, you have found precious little there. The more you have tried to get from the world, the more disappointed you have become, because the efforts you have made increased your sense of separation from the world. You will never be satisfied by mere concepts, and the world is nothing but a concept. Anything that changes cannot be said to be real. The ever-changing world cannot bring you the changelessness that you want. What disappears the instant you close your eyes or turn away can hardly be real. If you think it is, you will suffer. In the metaphor of [Section 13.4](#), the world is nothing but surface froth, devoid of all meaning, significance, or purpose. In the metaphor of [Section 13.2](#), the world is nothing but flat, two-dimensional reflections from a

screen. In the metaphor of [Section 13.11](#), whenever you have tried to drink from a mirage, all you have gotten is a mouthful of dry sand. Until you see the true nature of the world, it will be a desert to you.

The three-dimensional appearance of the world strongly reinforces the illusion that it exists (see [Section 14.1](#)). A one- or two-dimensional world would not seem nearly as real. Yet, three-dimensional illusions that we know to be unreal are very familiar to us. For example, there are three-dimensional slide viewers, three-dimensional movies, and three-dimensional computer-generated virtual realities. Furthermore, when we close our eyes, the three-dimensionality disappears (see [Section 14.1](#)), and what we then see does not seem nearly as real as what we see with our eyes open. However, Reality is the same whether our eyes are open or closed, whether we are dreaming or awake, and whether we do or do not have a body.

The unreality of the ego is the ego's best-kept secret. The unreality of the world is the world's best-kept secret. To see the truth of these secrets is to render unnecessary and irrelevant all spiritual teachers and all spiritual teachings.

In the November 20 meditation in *A Net of Jewels* (1996), Ramesh says:

"The ordinary, ignorant person can only see things as objects seen by a subject. Then, with a certain shift of understanding away from separate personal identity, it dawns on him that only the impersonal subject is real while the objects themselves are illusory. Finally, with total enlightenment, the sage sees objects as objects once again but within an essential unity where there is no separation of subject from object, or in fact any separation of any kind."

While this course is in disagreement with much of *A Course in Miracles* (see [Chapter 15](#)), the last three sentences in the introduction to *ACIM* succinctly summarize the message of this chapter:

"Nothing real can be threatened.
Nothing unreal exists.
Herein lies the peace of God."

Since Reality is not conceptual, disidentification must work at the intuitive level, and then go still deeper to the level of knowing and conviction (see Chapters [22](#) and [24](#)).

By now you will realize that, even though practices have been suggested in this chapter and others will be suggested in later chapters, you cannot do these practices because you can do nothing. Therefore, if they are supposed to happen, they will. If not, they won't (see [Section 18.4](#)).

Chapter 22. Disidentification through enquiry

22.1. What is enquiry?

In the meditation for February 25 in *A Net of Jewels* (1996), Ramesh says,

“Self-enquiry is the direct path to Self-realization or enlightenment. The only way to make the mind cease its outward activities is to turn it inward. By steady and continuous investigation into the nature of the mind, the mind itself gets transformed into That to which it owes its own existence.”

As with all practices, it is necessary to describe this practice as though you are an individual who is practicing it. By now, this mode of description should not confuse you. Whether or not any practice happens is not up to you. There is never a doer in any practice, just as there is never a doer in any other action.

Since awakening can only happen from outside of time, no practice, which is always in time, can bring it about. However, practices help to quiet the thinking mind in preparation for its ultimate disappearance. Associated with this process is a diminished sense of separation and suffering, including the emotions of anxiety, fear, guilt, envy, hatred, and judgment.

Enquiry, as described by Ramana Maharshi who originally taught it, is the direct approach in the sense that it directly confronts the illusory “I” and reveals our true nature. It is the only practice that does not reinforce the sense of personal doership and responsibility (as we have seen in Chapters [20](#) and [21](#), enquiry is implicit in understanding). The purpose of enquiry is to reveal the nonexistence of the I-entity, and the reality of the Self or pure Awareness. Initially it is seemingly practiced by the “I”, but the practice itself questions the I-entity’s existence. It shifts the identity away from the mind and its concepts, which by their very nature are limiting and contracting, towards the inner freedom of pure Awareness. It is a valuable sitting meditation technique as well as an eyes-open technique used in activity.

Enquiry is an investigation into the distinction between the self and the Self, i.e., between what changes and what does not change. It is not mysterious or mystical and can be practiced by anybody. It is a process of becoming aware of, and focusing on, Awareness itself rather than on the contents of Awareness. This produces disidentification from all thoughts, feelings, emotions, sensations, perceptions, and actions. This does not mean that they end, only that there is no longer a fictitious entity that thinks, feels, perceives, acts, and suffers.

We first describe enquiry as an explicit technique. Later we shall broaden it so that it is less ritualistic, and becomes simply an increasing awareness of your misidentifications and of your true nature in all life situations.

22.2. Enquiry into the self: self-enquiry

The first step is to become aware of your feelings, especially those that are uncomfortable. Examples are desire, lust, envy, anxiety, fear, shame, guilt, contempt, resentment, anger, rage, hatred, helplessness, hopelessness, defectiveness, and despair (see [Section 11.5](#)).

The next step is to disidentify from these feelings. This is done by looking to see who it is that is feeling them. This is appropriately called self-enquiry (uncapitalized) because it questions the existence of the separate self.

Thus, whenever you are suffering, ask a question like,

Who is it that is feeling defective?
Who is it that is feeling victimized?
Who is it that is feeling this helplessness?
Who is it that is feeling this anger/rage/hatred?
Who is it that is feeling this regret/guilt/shame?
Who is it that is feeling this envy?
Who is it that is feeling this anxiety?
Who is it that is feeling this despair?
Who/what is this "I"?

and then look for the "I", image, feeling, or thought with which you are identifying (see [Chapter 11](#)). The more specific the question is, the more effective it will be. Don't conceptualize an answer! As soon as you begin looking, disidentification from the pattern of thoughts and emotions will begin, and you will start to feel relief. On looking, you may see nothing, in which case the suffering is clearly groundless. But you may also see an image of a fearful (or guilty, ashamed, angry, helpless, etc.) victim, or you may just sense a vague, undefined object; but this image cannot be You since You are what is aware of it. You may recognize it as some kind of parent or child figure from your past, but most likely it will be highly distorted. As soon as you see what you are identifying with, the emotion will quickly subside because you are no longer identified with it.

You can even apply this practice to instances when you are feeling no particular emotion, but when your intuition tells you the ego is at work. For example, the ego may ask the question, "Who was "I" in "my" last life?", or, "What will happen to "me" when "I" die?" Both questions are loaded with the assumption that there really is an "I". You may then ask the counter-question, "Who is it that is asking this?" and then look for the image. Disidentification from the image by seeing that you are not the image will make it clear that there is not, and never has been, an "I". Enquiry into the "I" is done simply by looking for it. It will be clear that the "I" does not exist when you are unable to find it.

Since the sense of doership or thinkership is essential to the belief in the I-entity, **a particularly useful form of self-enquiry is to ask, and then to look for the doer or thinker.** Do not try to force, direct, or conceptualize an answer. That will defeat the purpose of the exercise. Just look for an image, entity, or sensation. You may find a localized sensation somewhere in the head or chest regions. However, as always, anything that you can see, no matter how subtle or close to you, cannot be you because you are what is seeing it. You may also find nothing at all. In that case, it is even more obvious that there is no thinker or doer.

A more subtle sense of doership is observership. Even if you cannot find a locus of doership anywhere in the body, there can still be identification with the sense of an "I" that is looking. Whenever you have the sense that you are the observer, total disidentification has not yet occurred. There is nothing the "I" can do to get rid of itself because trying only reinforces itself, but it can disappear spontaneously. This happens when there is total absorption of the "I" in Awareness or in an object, as described in [Section 22.5](#) at the end of this chapter.

Another approach to enquiry is to investigate the true nature of a thought, feeling, or emotion and where it comes from. For example, if guilt, shame, anger, or hatred arises, ask, "What is is this, really?", and, "Where is this coming from?" Don't conceptualize an answer! If it is seen

that such emotions simply arise spontaneously from Nothingness and do not come from some object that you call "I", then disidentification will occur and they will no longer bother you, although they may still be present. These examples all illustrate the principle that the way to see what you are is to see what you are not.

Ramesh advocates a form of enquiry when he asks the seeker to verify whether or not free will exists by watching to see whether decisions are spontaneous or not. Nonvolitional thoughts are easily seen to come from nowhere, but there may be a strong sensation that volitional thoughts come from "me". However, enquiry into this "me" will reveal either a location in the body or its nonexistence. In the former case, since you can perceive its location, it cannot be you. In the latter case, the thought clearly comes from nowhere.

Furthermore, by careful watching, we can see that all thoughts, feelings, emotions, sensations, perceptions, and actions come and go completely spontaneously (causelessly). Thus, we cannot be the author of any of them.

In all applications of enquiry, the purpose in asking the question is simply to focus the attention. This in itself is not enquiry, however. Enquiry consists in looking for the object questioned without conceptualizing an answer. It is the looking and either finding or not finding that is important. In both cases you have become disidentified from what you are looking for.

Self-enquiry (lower case) can be practiced simply by watching the mind. By doing so, you will see that all objects are nothing but mental objects, and that, merely by observing them, you will begin to disidentify from them. Watching the mind is the essence of Vipassana, which was discussed in [Section 12.6](#).

On p. 247 of "*I Am That*" (1984), Nisargadatta Maharaj says,

"If you are angry or in pain, separate yourself from the anger and pain and watch them. Externalization is the first step to liberation. Step away and look. The physical events will go on happening, but by themselves they have no importance. It is the mind alone that matters."

22.3. Enquiry into the Self: Self-enquiry

To St. Francis of Assisi (1182-1226, founder of the Franciscan Order of the Roman Catholic Church) is attributed the remark, "What you are looking for is what is looking." This is also a succinct statement of the intent of Self-enquiry (capitalized), which means to look for what is looking, or to watch for what is watching.

You will never be satisfied with anything in the world because everything in it changes. The only thing that will ever really satisfy you is your true Self, which transcends all changes.

Whenever you are suffering, focus the attention on what is looking by asking a question something like,

What is aware?
What is it that never changes?
What is it that cannot be affected?

and then look. Don't conceptualize an answer! By looking, you will become disidentified from any kind of thought or image that you see. If you have the sensation that what is watching is located in the head or chest, remember again that anything that you can watch cannot be what is watching. This applies to any sense of a localized object, even to an observer. You may now have the sensation of receding away from all mental objects towards an inner You, which is prior to, or inward from, all mental objects. Stay in this state until involvement with thoughts recurs, then repeat the question and look again. This state is one of stillness, peace, and fullness in which you are disidentified from everything in manifestation.

If you still have the sense that there is an observer that is looking, ask,

What is it that is aware of this observer?

and then look. This will help you to recede even further.

With practice, you will find that you stay in this state for longer and longer periods before asking again. Eventually, you will be able to omit asking, and simply look at what is looking. You may also begin to feel the pull of the Self itself and, with more practice, the Self may pull you in and hold you with little or no effort from you. And finally, you may realize that the Self is always what you are, and is always what you have been.

Every incident of suffering is another cue to disidentify. Whatever happens or does not happen is never up to you, so the only thing that you can "do" in any situation is to disidentify from it. This will bring an immediate but profound sense of silence and peace which will be irresistible inspiration for continued disidentification.

Enquiry into the Self may be summarized by the reminder,

Go inward.

Go inward past all thoughts, feelings, emotions, sensations, and perceptions, as far as possible until you can see that none of the mind's contents are You or Yours. If you are still suffering, you have not gone far enough. Go still further and see that there is nothing there. You will then see that You are not a concept or object because You are what sees them. You Yourself are nothing that You can see or conceptualize. While you are inward, You will be unmoved and untouched by anything that happens in the body-mind or the world because You will see that You are unmovable and untouchable.

Outward is emptiness, frustration, dissatisfaction, anxiety, and boredom, and nothing that you really want. Your security cannot be found in what is ever-changing. It can only be found in what is never-changing. What you are looking for is what is looking. It is the home of peace and fulfillment and everything you really want.

Do not be deceived by the apparent simplicity of this practice! It is far more powerful than the mind can ever imagine because it brings you to the real You, which transcends the mind and therefore cannot be understood by the mind.

While you are inward, the activities of the body-mind and of the rest of the world may continue but they will not affect You. The more time you spend inward, the more you will realize your true nature, and the better you will feel.

In the meditation for February 19 in *A Net of Jewels* (1996), Ramesh says,

“When conceptualizing ceases, the outward false-seeing stops, and what remains is in-seeing, not seeing inside but seeing from within as the source of all seeing.”

Every instant of disidentification helps to reinforce the apperception (the inner awareness that is beyond perception) that you are not the doer. Of course, whenever an activity requires intense concentration in order to be efficiently done, you will become identified, not as the doer, but as the activity itself, so there will be no suffering, i.e., the thinking mind will be absent and only the working mind will be present (see [Section 11.6](#)).

Initially, enquiry is most easily practiced in sitting meditation with a minimum of distractions (see [Section 23.2](#)). However, its real value is realized only when you use it to remain disidentified in all forms of activity. Ultimately, Self-enquiry is transformed from an active practice into the realization that ever-present, pure witnessing is what You are. In the meditation for December 16 in *A Net of Jewels* (1996), Ramesh says,

“Self-enquiry is a passive rather than an active process. Mind is allowed to subside into its source even while engaged in normal activity, which then becomes an undercurrent of witnessing that gradually extends throughout all waking hours and begins to pervade all one’s activities without intruding on them or interfering with them.”

Nisargadatta Maharaj was a striking example of successful enquiry. In an article in the October 1978 issue of *The Mountain Path*, Jean Dunn, a disciple of his, wrote that he once said,

“When I met my guru he told me, ‘You are not what you take yourself to be. Find out what you are. Watch the sense “I Am”, find your real Self.’ I did as he told me. All my spare time I would spend looking at myself in silence. And what a difference it made, and how soon! It took me only three years to realize my true nature.”

22.4. Enquiry into the manifestation: outward enquiry

Enquiry consists not just of the special techniques described above. It is even more a stance which questions and enquires into the reality of all aspects of life. Its usefulness is not limited to questioning the existence of the I-entity. It can be broadened to investigate the true nature of any object, whether physical or mental, and whether internal or external. For example, What is this, really?, Where is this coming from?. Don’t conceptualize an answer! Investigation will immediately show that all objects are mental objects, including the body-mind organism itself. There is no such thing as an external object (see also [Chapter 9](#)). Thus, all

things, including our bodies and minds, and even the entire universe, arise inside the Awareness that is our true nature. Furthermore, since all objects arise from the Background and dissolve back into the Background, they all consist of the Background. Self, Source, Background, and Awareness are all equivalent terms---they all point to the same Reality that underlies all phenomena. You can see a similar effect by alternately opening and closing your eyes. When they are closed and before thoughts arise, you see a blankness, which is analogous to the Background. Then when you open them again, objects appear and are superimposed on the blankness. In the same way, all objects at all times are superimposed on the ever-present, never-changing Background.

Awareness is the transcendent, unchanging Reality and the immanent essence of the entire manifestation, whether “inward” or “outward”. This can be “seen” by focusing on the Background of any object rather than on the object itself. True seeing can be facilitated by inquiring, “What is the unchanging reality of this object?”, and then looking. A growing awareness of the Background and seeing that it and all the objects in it are nothing but Awareness is called the “direct method” by some sages (see also [Chapter 16](#)).

You can practice enquiry no matter what you are doing or what is happening because its essence is to be aware and to discriminate between what is real and what is not. It is equally effective in sitting meditation or in activity. Eventually, enquiry will cease to be a practice, and will become simply a continuing awareness of What-you-are.

22.5. Equivalent practices

All of the above disidentification practices can be subsumed into the following equivalents:

Disidentify.
Transcend.

Either of these will help you to realize your true invulnerability to anything that can happen, from guilt to shame to hatred to injury to sickness to death. You can use them to disidentify from anything, whether “internal” or “external”, whether it is a judgmental thought, a consuming emotion, or an intense pain. This does not mean that they disappear--it means only that they are not yours. As you disidentify, you will see that neither the world nor the mind is your home. You will never find what you are looking for there. Your home is your true Self which is nowhere and nowhen because it transcends all locations in space and time.

The questions and examples given above are only suggestions. Your intuition will suggest other questions or applications that are effective for you.

22.6. Some loose ends gathered

Enquiry, especially in activity, plus a deepening understanding of the metaphysics of nonduality, will alleviate suffering, bring peace, and may ultimately allow awakening or enlightenment to happen. We must remember, however, that awakening is a purely spontaneous event, which cannot be brought about by any efforts of the “I” or “me”, since they themselves are the problem. Enquiry merely establishes the conditions whereby understanding can spontaneously deepen from the intellectual level to the intuitive level and become enlightenment.

As we have seen, every object whether we consider it to be external or internal, is a mental object. The world, the guru, the saint, the sinner, the feeling of bondage or liberation, the hallucination, the dream, all are mental objects. However, there is a difference between the guru and most other thoughts. The function of the guru or spiritual teacher is to turn the mind towards its Source, the unmanifest Background, and away from the guru itself. If a teacher does not do this, he/she is a false teacher because the mind must find its Source before awakening can occur. The teacher is dispensable after fulfilling this function. Indeed, we might say that the function of the teacher is to make himself/herself dispensable.

Some people seek answers to questions like, "Why is all of this happening?" or "Why is there so much suffering in the world?" Such questions always come from the viewpoint of the individual. At the individual level, there are no answers. The best way to answer them is to adopt the viewpoint of impersonal, unmanifest Awareness, which is what you are, rather than the individual, which is what you are not. At the level of Awareness, there are no questions.

Ramana Maharshi termed the state of enlightenment brought about through enquiry as sahaja samadhi. He also called this the natural state, in which there is complete absorption in the Self, so there is no ego but there is still awareness of the world, which is seen to be identical with the Self. For comparison, the ultimate state of transcendence through yoga is called nirvikalpa samadhi. In that state, there is no ego and no awareness of the world, but there is awareness of pure Peace. The difficulty with it is that, on coming out of it, the ego or thinking mind have not always been dissolved, but tend to arise again. A third form of samadhi is savikalpa samadhi, in which there is no I-entity, and the mind is totally absorbed in an object. This can occur when there is intense focus on some consuming activity, such as art, music, athletics, or science. Again, the difficulty is that the ego usually returns when the focus ends.

Chapter 23. Disidentification through meditation

23.1. Principles of meditation

At the risk of being overly repetitious, we again remind the reader that this practice, like all other practices and indeed all activity, is never done by an individual because there are no individuals. If meditation is supposed to happen, it will. If not, it won't.

Of all practices, meditation is perhaps the most widely used because it can be used concurrently with any other practice, or it can be the primary or sole practice, and it lends itself to use by widely different personality and body types. There is a common misconception among meditators that the aim of meditation is simply to quiet the mind. However, the ultimate

aim of all meditation is to become aware of our true nature and to disidentify from the “I”. Since our true nature is pure Awareness, awareness is an essential ingredient at all times and this is the key to its effectiveness. Because pure Awareness is equivalent to transcendence of the mind, we can also say that the ultimate aim of meditation is to transcend the mind, which in turn is equivalent to disidentification.

Meditation simply consists of focused attention. It is possible to focus and meditate either inwardly or outwardly, on any object, or on the underlying Reality, Background, or Source of any object. Focusing on a task at work, on something being said, on something being read, or on any other activity, are all meditations. Focused attention is another way of defining worship. When the attention is focused on a religious symbol or image, it becomes religious or devotional worship.

Although focusing with intense interest on an absorbing activity such as work or play tends to bring about disidentification from the “I” because the “I” is forgotten during the activity, it always returns after the activity ends. It also does not increase experiential or intuitive knowledge of one’s true nature.

Many meditation techniques require one to focus the mind on some mental image or symbol, or on a sensation such as the breath. While it might seem as though the mind is going inward when meditating on such an object, the object is still outward, away from the awareness of the object. Thus, the mind does not really go inward as it does in Self-enquiry ([Section 22.3](#)) so one’s true nature is still not revealed.

Such techniques have the aim of quieting the mind with the hope that, from a quiet mind, transcendence or disidentification may occur. It is this intense focus that tends to prevent thoughts from arising and allows a meditative state to set in. An object of focus may be a mantra, an affirmation, the breath, the third eye, an inner sound or light, or an external object such as a candle, a divine symbol, or the sounds from a meditation tape. Because effort tends to prevent transcendence in this kind of meditation, the focus must be gentle and unforced. When thoughts arise, they are noted and the attention is again gently returned to the meditation object. Absorbed but effortless focus on an object can lead to savikalpa samadhi, as described in [Section 22.5](#).

If a mantra is used, effortlessness is achieved by letting the repetition gradually occur more easily, and the mantra to become more subtle, eventually to continue completely spontaneously, and finally to disappear. At this point the observer may disappear also, with nirvikalpa samadhi ensuing until the observer reappears.

Some types of meditation, such as Transcendental Meditation, are delicate processes that can be learned only from an experienced teacher. That is because the meditator is almost always tempted to use effort in thinking the mantra. The teacher must show the meditator that effort is always counterproductive and in addition can make meditation an unpleasant and stressful experience.

Many teachers will teach that meditation requires sitting with the back erect, but some types of meditation, including enquiry, can also be done while lying down or walking, or in activity. When sitting, the eyes can be either open or closed, but generally people find meditating with

closed eyes easier, and this is usually the way meditation is taught.

Buddhism in the West has produced a type of meditation without religious dogma or doctrine, called Vipassana (see [Section 12.6](#)). In this meditation, all of the contents of the mind are passively observed, without judging or trying to change or to expunge them. It can be used either in sitting or in activity, and is similar to self-enquiry, which is described in [Section 22.2](#).

Another offshoot of Buddhism without dogma or doctrine, called Zen, arose in China and was transported to other Asian countries, and then to the West (see [Section 12.7](#)). Zen is a practice-oriented tradition that is even more popular in the West than Vipassana.

During meditation, the meditator frequently experiences the delightful bliss of a quiet mind. He or she quickly learns that, not only during a meditation session but also afterwards, disturbing thoughts and feelings of all types have disappeared and peace continues, albeit usually only temporarily. These immediate rewards are powerful incentives to continue the practice.

However, there can be many experiences that a meditator has to pass through before this peace endures. Here, a teacher can be of great help so that the meditator is not blocked by them. Depending on the system of meditation and the teacher, these experiences are variously called stress release, unstressing, processing, or catharsis. They can be exalted and inspiring, but more often are disturbing, uncomfortable, or even frightening. These are repressed emotions that are coming into awareness (see [Section 24.3](#)), and that must be released before peace can endure. They are purifying experiences and are necessary for continued progress, but they can be intense enough to tempt the meditator to abandon his or her practice were it not for continued encouragement by the teacher. Gradually they subside as disidentification progresses, and the periods of blissful and satisfying silence lengthen. There are also other signs of progress such as the appearance of exotic visual, auditory, or bodily experiences that the teacher will sometimes point to in order to inspire the meditator to continue, although they are always phenomenal rather than noumenal in nature.

23.2. Self-enquiry as meditation

Initially Self-enquiry (see [Section 22.3](#)) usually requires considerable effort in order to counteract the mind's conditioned tendency to go outwards towards the object rather than inward to the Awareness of the object. With experience, however, the required effort diminishes as the mind is drawn towards the peace resulting from focusing on Self.

While disidentification occurs most effectively when the focus is on Awareness or Self as it is done in Self-enquiry, focus can also be on the Background or true nature of an object, as is done in outward enquiry ([Section 22.4](#)). By focusing on the Background one quickly sees that everything arises from it and is inseparable from it. Background is the only reality and everything else consists of it. The waves consist only of water ([Section 13.4](#)) and the bracelet consists only of gold ([Section 13.7](#)).

With either an inward or outward focus, the sense of separation is dissolved, and we directly contact our true nature. That is why enquiry is the most direct form of practice (and why it is called a direct method). It can be done in any body position, in any activity, or in seated meditation. An inward focus is easiest in seated meditation, but with practice it also becomes

increasingly easier even during activity. An outward focus is possible in any situation. However, “inward” and “outward” are concepts that are meaningless in Reality, and the difference between them disappears when it becomes clear that the same background of Awareness is everywhere.

Self-enquiry in seated meditation can be described as going inward, seeing through or going past all objects, images, and sensations, and focusing on Awareness. Since Awareness is not a thought, feeling or sensation, it cannot be seen, felt or perceived, but it is easily known because it is what you are. When seated with eyes closed, focus the mind on Awareness by asking,

What is Aware?

and then look. Peace results when the thinking mind (see [Section 11.6](#)) stops.

23.3. Going inward

Going inward (see [Section 22.3](#)) can lead to any of the three samadhis: sahaja, nirvikalpa, or savikalpa, as described in [Section 22.5](#). In this meditation, the focus is inward, past thought itself rather than on it. The initial effort and strain of going inward will be lessened by easing gently into it. Later, as the mind is naturally drawn to its source, it will spontaneously become quiet.

Going inward is possible whenever the mind is not overly occupied with other tasks, such as on walks, while doing mindless activity, or while sitting quietly with eyes either open or closed. When the eyes are closed, it is easy to see that all thoughts bubble up causelessly from the background and then disappear back into it. However, these bubbles of mental activity are no different from any other forms that appear in Consciousness whether the eyes are open or closed.

With the eyes closed and the mind quiet, all mental activity can be seen to arise spontaneously as nothing but vague forms from the silent background. It is only when the intellect becomes active and conceptualization begins (separating and naming, see [Section 9.2](#)) that thoughts appear (see [Section 11.1](#)), and only when identification begins that they appear to be objects (see [Section 11.2](#)).

When the eyes are open, the mind seems to be localized within the head, but when they are closed, it seems to be everywhere. Yet, in [Section 9.2](#), we saw that the mind encompasses all objects, and the distinction between internal and external is purely conceptual. When the eyes are open, "external" objects appear to have distinct, stable, three-dimensional forms, separate from each other and from the body. That is why they are so persistent and difficult to see through, but that is the illusion of Maya (see [Section 14.7](#)).

Chapter 24. Acceptance: Disidentification from resistance

24.1. What is Acceptance?

In the meditation for December 20 in *A Net of Jewels* (1996), Ramesh says,

"It is only resistance that transforms the eternity of the present moment into the transience of passing experience as time or duration. Without resistance there is only eternity."

In duality, acceptance/resistance form a polar pair. However, Acceptance as we shall speak of it transcends all duality. Thus, it is not a practice (see [Chapter 19](#)). Being transcendental, Acceptance is always present, but it is revealed only when resistance no longer conceals it. Acceptance is disidentification from all doing. Without identification, there is no resistance to what-is, so life is naturally free and peaceful. With identification, there is resistance to whatever is deemed to be unwanted or undesirable, so life is a struggle. An awareness practice, even a practice of acceptance, can reinforce resistance instead of weakening it if it does not focus on disidentification. The inevitable result will be a prolongation or increase of suffering rather than a decrease. Such is the case with the practices that are taught by most religions and spiritual systems.

The struggle ends when identification with doing ends. This is called surrender, but "I" cannot surrender because "I" itself is the problem. Thus, no practice can end identification because "I" is always present in it, but a practice that focuses on seeing what identification is can weaken it and thereby reduce resistance and suffering.

24.2. If there is identification, life is a struggle

"I" results from identification with the "I"-concept (see Sections [11.2](#) and [21.3](#)). Seemingly separate from "I" is the "other", the conceptual world (see Sections [11.1](#) and [11.2](#)). Whenever they appear, resistance and suffering also appear because "I" is always in conflict with the world. Resistance is a thought, feeling, or emotion that always resists something, be it a thought, feeling, emotion, sensation, perception, or action. As a result, this imaginary, nonexistent world seems real.

Resistance stems from the judgment that what-is should not be the way it is, and from the belief that there is something you can do about it. (Judgment is not the same as evaluation, which does not involve a judgment about what should or should not be.) Resistance is always present whenever victimhood is experienced (see [Section 11.4](#)), whether the victimizer is thought to be the body, the mind, others, life, God, or whatever. It powerfully activates the thinking mind (see [Section 11.6](#)), and obscures the truth about You (see [Section 22.3](#)) by clouding your awareness of it. However, whatever happens---thoughts, feelings, emotions, sensations, actions, and perceptions---must happen. What-is cannot be other than what it is. Therefore, if resistance occurs, it is because it must, and if disidentification occurs, that also is because it must. But before suffering can end, it is helpful to understand that it is identification that is the problem. Whenever it is present, so is the feeling of imprisonment or enchainment.

Because there is no doer, your peace cannot lie in thinking that you can resist either what is happening or what is not happening. It can only lie in disidentification from the belief that you can do something.

Whenever pain, poverty, sickness, danger, or ignorance are present, the body-mind may react to try to change, eliminate, or defend against them, but if there is no resistance, there is no

suffering because there is no thinking mind (see [Section 11.6](#)). If resistance is present, the thinking mind is present, and the same conditions and reactions will entail suffering.

Resistance and suffering are nothing but identification with deeply conditioned habits. The suffering of others is no justification for your suffering. If it were, there would never be any end to it. Suffering ends when identification ends, and identification can end at any time regardless of the degree of suffering present.

24.3. Repression of emotions creates physical illness

Emotions are not rational--if they were, they would not be emotions, but would be thoughts, instead. Thus, to try to justify our emotions by rationalizing them is not only futile, but it also leads to destructive attempts to justify our emotional behavior. For example, we feel guilty for our racial prejudices, so we think, "they are unworthy", or "they are inferior". If our private rationalizations do not work, we join allies in order to dilute our guilt; hence, the creation of religions, movements, and ideologies to discriminate or to make war. However, when emotions cannot be accepted by justifying them, they are resisted instead.

Resistance to emotions takes the forms of suppression and repression. Suppression is a conscious process that pushes down an uncomfortable emotion, such as anger, so it is temporarily unseen. Habitual suppression leads to repression, which is an unconscious process that renders the emotion completely unseen. By watching the mind, suppressed feelings can be brought back to awareness, but repressed feelings are usually unavailable without some kind of external intervention. Both suppression and repression must lead to suffering because they try to divide Consciousness into parts, the desired and the undesired, or the acceptable and the unacceptable.

Fear, anxiety (fear-based apprehension), anger (frustrated drive), guilt (self-condemnation), and shame (self-hatred/disgust) are among the most potent and imprisoning emotions in our lives (see Sections [11.3](#), [11.4](#), [11.5](#)). Before the age of two (see [Section 5.8](#)), we began viewing ourselves as being separate, and we learned that our anger was "bad" when our first spontaneous, angry outbursts were met with stern disapproval and perhaps even with physical punishment. Fear of disapproval, then anxiety, guilt, and shame quickly followed. Fear of these emotions themselves then created the powerful mechanism of repression, which banished them from our awareness. In fact, so effective is the repression mechanism that it even banishes itself from our awareness, and therefore, we never know when we are repressing an emotion.

Parents, culture, religion, and society all approve and reinforce the repression of emotions--in fact, it is an essential part of our socialization. Socialization enforces conformity by teaching us that we can resist our emotions, but the belief that we can resist them causes us to live in fear of them. Our perceived needs to be "nice", "good", "perfect", or "conscientious" are conditioned responses to fear of our own emotions, but these needs themselves foster even more fear of, and anger at, the responsibilities that are created by them.

Because repression/expression form an inseparable pair, repressed emotions must always be expressed--the stronger are the forces for repression, the stronger are the forces for expression. The longer the repression of anger, guilt, and shame continues, the more they become rage and hatred, and the stronger must be the barriers against its expression. After

rage/hatred has been internalized for many years, it forms a powerful core of conditioning that we always carry with us, but that we glimpse only when it is revealed by an intense, uncontrollable explosion.

Repression of rage/hatred has devastating consequences to our physical and emotional health and our well-being. John Sarno, MD, after three decades of practicing rehabilitation medicine with thousands of patients, has described in his remarkable book, *The Mindbody Prescription* (1998), how repression leads to many disabling kinds of physical pain and distress (see also his website at www.healingbackpain.com/index2.html).

According to Dr. Sarno, the forces for expression of culturally forbidden rage/hatred (e.g., in the forms of racial or religious hatreds, or of anger toward our parents, siblings, or children), and of emotionally painful shame, are so strong that the brain creates a defense against them by distracting our attention from them. This defense takes the form of intense physical pain and distress. (It is hardly surprising that the mind can create physical illness because we already know that it can create physical healing (see [Section 5.2](#).) The physical manifestations are of two types: 1) those mediated by the autonomic nervous system (which controls the body's involuntary functions), and 2) those mediated by the immune system.

Among the first type are back pain, sciatica, tendonitis, tension and migraine headaches, carpal tunnel syndrome, gastrointestinal distress, and genitourinary disorders. These are genuinely physical, rather than mental, disorders, but they are caused by harmless physicochemical processes (mild oxygen deprivation resulting from restricted blood flow) rather than by structural abnormalities. (This does not mean that they feel benign since the pain can be intense.) Among the second type are allergies, increased susceptibility to infections, and dermatologic disorders.

The defense also creates fear of its own engendered physical pain and distress, which increases it even more, and even creates anger at it, which further compounds it. (Another mode of defense is to divert our anger, guilt, and shame into culturally approved channels like moralistic, ideological, or self-righteous anger and blame. These and other modes are described in [Section 11.5](#).)

According to Dr. Sarno, our understanding of the function of the defense leads us immediately to the antidote for the pain and distress, which is to focus our awareness on the emotions that surround the repressed ones rather than on the pain. This undermines the purpose of the defense, which is to distract us from these emotions. The antidote requires 1) a deep understanding of the purpose of the defense, 2) a realization that the physical pain and distress is a result of harmless physical processes, thus allowing us to shift, without anxiety, our awareness from the pain and distress to the emotions themselves, and 3) a persistent focus on the emotions and all of their possible sources, both past and current. The more the emotions are allowed into the awareness, the less will be the need for the pain and illness. It then either vanishes or is greatly reduced.

24.4. Resistance, desire/fear, attachment/aversion

Resistance encompasses the attachment/aversion dualism, and this in turn is based on the desire/fear dualism. But whenever there is desire, there is fear also--the fear of losing or not getting--so both halves of both dualisms are actually fear-based (see [Section 11.3](#)). Fear is

always present whenever there appears to be separation, so a fear-based life is the bane of those who think they are separate. Fear is equivalent to suffering, and it stems from the belief that you can or should be able to change what-is so that you can get what you want and avoid what you do not want (see [Section 17.5](#)). When the "I" disappears, so will fear, as will all feelings of victimhood and powerlessness (see [Sections 21.2](#) and [21.3](#)).

A particularly difficult desire/fear dualism to deal with is that associated with survival (see [Sections 11.3, 11.4](#)). Many people feel a consuming stress associated with making a living and ensuring the survival of self and family, yet this stress is no different from any other. All stress depends on the feeling of personal responsibility (see [Chapter 15](#)), and this feeling in turn depends on identification with personal doership (see [Section 11.2](#)). In fact, in any moment any body-mind may or may not survive, but survival never depends on a personal "I". Certain biblical passages, which are usually interpreted dualistically as prescription but can also be interpreted nondualistically as description (see [Section 17.1](#)), make this clear also. For example, we find in *Matthew 6*:

24: "No one can serve two masters; for either he will hate the one and love the other, or he will be devoted to the one and despise the other. You cannot serve God and mammon.

25: "Therefore I tell you, do not be anxious about your life, what you shall eat or what you shall drink, nor about your body, what you shall put on. Is not life more than food, and the body more than clothing?"

26: Look at the birds of the air: they neither sow nor reap nor gather into barns, and yet your heavenly Father feeds them. Are you not of more value than they?"

27: And which of you by being anxious can add one cubit to his span of life?"

28: And why are you anxious about clothing? Consider the lilies of the field, how they grow; they neither toil nor spin;

29: yet I tell you, even Solomon in all his glory was not arrayed like one of these.

30: But if God so clothes the grass of the field, which today is alive and tomorrow is thrown into the oven, will he not much more clothe you, O men of little faith?"

31: Therefore do not be anxious, saying, 'What shall we eat?' or 'What shall we drink?' or 'What shall we wear?'

32: For the Gentiles seek all these things; and your heavenly Father knows that you need them all.

33: But seek first his kingdom and his righteousness, and all these things shall be yours as well.

34: "Therefore do not be anxious about tomorrow, for tomorrow will be anxious for itself. Let the day's own trouble be sufficient for the day.

Without identification, there can be concepts (see [Sections 9.2](#) and [11.1](#)) but there can be no objects (see [Section 11.2](#)). This can be seen through enquiry (see [Chapter 22](#)) and meditation (see [Section 23.3](#)). With identification, objects seem to arise, along with the attachment/aversion dualism. Attachment is the fear of the loss or unattainability of something that you want. Aversion is the fear of the presence of its polar opposite. Thus, fear is present in both. A grievous but common misunderstanding is that fear is necessary for efficient functioning, but in fact, it is an enormous obstacle to it, and, in addition, realization of transcendental freedom and peace is impossible as long as fear is present.

The following table lists some familiar examples of attachment and aversion:

Attachment: {	desire for the presence of:	Aversion: {	fear of the presence of:
	fear of the absence of:		desire for the absence of:
	love		hate
	hate		love
	"righteous" anger		weakness
	"acceptable" anger		"unacceptable" anger
	power		helplessness
	belief		nonbelief
	youthfulness		aging
	pleasure		pain
	desire		desirelessness
	comfort		discomfort
	convenience		inconvenience
	sweetness		bitterness
	success		failure
	relationships		loneliness
	self-esteem		self-condemnation
	health		sickness
	wealth		poverty
	life		death
	death		life
	existence		nonexistence
	status		obscurity
	purpose		emptiness
	approval		disapproval
	excitement		boredom
	happiness		sadness
	positivity		negativity
	beauty		ugliness
	freedom		bondage
	good		evil
	virtue		sin
	right		wrong
	pride		guilt
	pride		shame
	humility		arrogance
	hope		despair

Any thought, feeling, or emotion may be present at any time, but, if there is no "I", there is no attachment/aversion, and no suffering.

Whenever one desire is satisfied, another always replaces it. Thus, one suffering is always replaced by another, so suffering can never be ended by trying to satisfy desire.

Everyday life as we know it could not exist without fear/desire. Even entertainment depends on it, from the ancient Greek comedy-tragedies to today's love-hate-terror dramas. To the fearful, the thought of life without fear/desire might itself seem fearful. However, fear of the absence of fear/desire is based on the concept that you are determined by your fears and desires. But You are not determined by them because, as we have already seen, You transcend all fears and desires (see Section [22.3](#)).

In the meditation for September 22 in *A Net of Jewels* (1996), Ramesh says,

“Feelings and emotions are all based on duality. So long as they continue to dominate one’s outlook, duality will continue to have a firm hold, excluding the real holiness, the wholeness that is UNICITY.”

However, this does not mean to suppress your feelings and emotions, because suppression is resistance. Rather, it means to disidentify from them.

24.5. You are not a mental image

Identification makes the "I", separation, the body-mind, fear/desire, and everything else seem real (see [Section 11.3](#)), yet they are all nothing but images in the mind, as ephemeral as are all mental images (see Sections [9.2](#) and [11.1](#)). This we must see if disidentification is to occur (seeing this is disidentification).

Look and see that . . .

**. . . all thoughts, feelings, emotions, and sensations are nothing but mental images in Awareness,
. . . the body-mind is nothing but a mental image in Awareness,
. . . people are nothing but mental images in Awareness,
. . . all objects and experiences are nothing but mental images in Awareness.**

What-you-are will become apparent when you see what-you-are-not ([Section 22.3](#)):

Look and see that . . .

**. . . You are not an "I", object, person, experience, or any other mental image,
. . . You are not responsible for any thought, feeling, emotion, or action of the body-mind, nor for its health or survival,
. . . You are Awareness, the only Reality there is.**

These practices can be summarized as follows:

**Focus outward,
and see that no mental image is real, nor can it affect You;**

and/or,

**Focus inward,
and see that You are not a mental image, nor can You be affected.**

24.6. The three stages of disidentification practice

The first stage (see [Section 22.2](#))

Watch your feelings.

Disidentification requires being aware of your feelings, emotions, and self-images (suppression of them can be disastrous, see Sections [11.5](#) and [24.3](#)). The more clearly you see (not act on) your feelings as they rise and fall, including all of your desire, lust, envy, anxiety, fear, shame, guilt, contempt, resentment, anger, rage, hatred, helplessness, hopelessness, defectiveness, and despair, the more you will transcend them, and the less you will suffer. A good way to do this is to keep a written journal of all of your mental upsets, and to record the root feelings as soon as possible after they occur.

The second stage (see [Section 22.2](#)).

Feelings/emotions are not suffering in themselves--it is identification with them that is suffering. Enquiring into the ownership of them is the second stage of disidentification.

Ask, “who is it that is feeling this (fear, guilt, shame, or other uncomfortable emotion)?”, then look.

You will find no owner.

The final stage (see [Section 22.3](#)).

The final practice--the ultimate, essential practice--may not be fully appreciated until considerable insight has been gained in the previous practices. Simply stated, it is to

Go inward.

Inward is absence of the "I", absence of resistance, and presence of peace. The more time you spend inward, the more you will realize your true nature, and the better you will feel.

Before disidentification is complete, it may seem as though you are doing these practices. However, the practices themselves show that you are not. By doing so, they put the thinking mind into abeyance (see [Section 11.6](#)), while allowing the working mind to function without interference.

On page 76 of *"The Wisdom of Sri Nisargadatta Maharaj"* (1992) by Robert Powell, Nisargadatta Maharaj says,

"The moment you know your real being, you are afraid of nothing. Death gives freedom and power. To be free in the world, you must die to the world. Then the universe is your own, it becomes your body, an expression, and a tool. The happiness of being absolutely free is beyond description. On the other hand, he who is afraid of freedom cannot die."

24.7. When identification ends, life becomes stress-free

To live without identification is to live without stress. In the meditation for June 27 in *A Net of Jewels* (1996), Ramesh says,

“To live naturally is to live as a mere witness, without control and therefore without

mentation, want or volition, uninvolved in the dream-play of life and living.”

In the meditation for November 23, he says,

“As acceptance gradually expands, then life becomes easier. Suffering becomes more easily bearable than when you are looking at it as something to be rejected, something to be ended.”

Instead of the word Acceptance, Francis Lucille uses the word Welcoming, which he defines as “benevolent indifference”. Both words, Acceptance and Welcoming, imply more than pure indifference. They also imply the transcendental Love of the Self for the Self as discussed in [Chapter 16](#). As quoted there, Satyam Nadeen says, “... my only definition of Love is embracing whatever-is, just as it is, and only because it is—without conditions that it be other than what it is”. Therefore, Love and Acceptance are equivalent to each other. For more about Love, see [Chapter 25](#).

Chapter 25. Love finding Itself

As a dualistic concept, love is the polar opposite of hate. However, we have already seen in [Chapter 16](#) that pure Love is transcendental, not dualistic. Therefore, Love (capitalized) is equivalent to Reality. Being nondual, it has no dualistic opposite.

On p. 269 of *“I Am That”* (1984), Nisargadatta says,

“I find that somehow, by shifting the focus of attention, I become the very thing I look at, and experience the kind of consciousness it has; I become the inner witness of the thing. I call this capacity of entering other focal points of consciousness, love; you may give it any name you like. Love says, “I am everything”. Wisdom says, “I am nothing”. Between the two, my life flows. Since at any point of time and space I can be both the subject and the object of experience, I express it by saying that I am both, and neither, and beyond both.”

We saw in [Section 22.4](#) that by enquiring into the true nature of the manifestation we could see that it consists of nothing but the underlying Reality of pure Awareness. Now we shall see that the manifestation is also an expression of Love. (Stated differently, it is a reflection of Love, and You are its Source.) Because Love is nondual, its expression is also nondual. However, until you become sensitive to nondual expression, it may be difficult for you to see it since it is not a thought or feeling, and cannot be perceived by the senses.

The following practices will help sensitize yourself to the Background of Reality, Awareness, and Love (see Sections [22.4](#) and [22.5](#)):

Look at the Background. Transcend.

Being transcendental, Love will be seen as immanent in every thing, no matter how it appears dualistically. If you are able to see this, then everything, without exception, will be seen as a blessing, and nothing will be seen as a curse.

Chapter 26. Very short summary

The following concepts, like all concepts, cannot describe Reality, but, unlike most concepts, they point to Reality.

1. The premise: Consciousness is all there is. Another word for Consciousness is the impersonal, yet intimate, I.

2. The conclusions:

I am not an object or entity.

Objects and entities are never real.

Whatever is supposed to happen will happen. Whatever is not supposed to happen will not happen. There is no doer, there is no choice, and there is no responsibility.

The entire manifestation is an expression of Love.

3. The practice: Don't believe this—look and see it for yourself!

Appendix. My resources and teachers

The following resources are the ones that I have found most valuable on my spiritual journey. They are only a few out of the thousands that are available. The comments about them are my own and are purely subjective.

1. By far, the two teachers who have influenced me most are the jnanis, Ramesh Balsekar and Wei Wu Wei. Ramesh's latest six books, *The Seeking* (2004), *Peace and Harmony in Daily Living* (2003), *The Ultimate Understanding* (2002), *Sin and Guilt—Monstrosity of Mind* (2000), *Who Cares?* (1999), and *Your Head in the Tiger's Mouth* (1998) are good, readable summaries of his current teaching. Another one, *A Net of Jewels* (1996), consists of meditations from his earlier books, two for each day of a year. Of the earlier books, I highly recommend two: 1) a metaphysical one, *The Final Truth* (1989); and 2) a translation of, and commentary on, the *Ashtavakra Gita* entitled *A Duet of One* (1989). (Another highly regarded translation, without commentary, of the *Ashtavakra Gita* called *The Heart of Awareness* (1990), by Thomas Byrom, is available at <http://www.swcp.com/~robicks/gitaintro.htm>.) Ramesh's books and tapes, and information about his satsangs, are available from Wayne Liquorman's website, <http://advaita.org>. Wayne was one of Ramesh's first students to awaken, and was later instructed by Ramesh to teach also.

An excellent website devoted to Wei Wu Wei and run by Matthew Errey can be found at www.weiwuwei.8k.com. Many of Wei Wu Wei's books are newly in print and available from www.sentientpublications.com. Eight of them are offered there for the bundled price of \$89 (a fantastic bargain!). All of these books are excellent—but my favorite is *Posthumous Pieces*.

2. The teacher next most influential to me has been Francis Lucille, whose schedule can be found at www.francislucille.com, a site that is maintained by his wife, Laura Lucille-Alvarez. Francis cannot easily be categorized as either bhakta or jnani. Although I disagree with his shoulds and shouldn'ts, I consider him to be an excellent teacher because of his powerful intellect and the clarity of his answers to questions. He has written a clear and lucid book

called *Eternity Now* (1996), which is available from his website.

3. I have learned an enormous amount about Self-enquiry from the jnanis Russell Smith and Nome of the Society for Abidance in Truth in Santa Cruz, CA. Their website is www.satramana.org.

4. In his books, *As It Is* (2000), *All There Is* (2003), and *Invitation to Awakening* (2004), Tony Parsons gives a clear and profound description of what life after awakening is like. His website is at www.theopensecret.com, which also contains instructions for obtaining his books.

5. A teacher who awakened while reading a book by Ramesh while incarcerated in a federal prison, and who has a unique approach to spirituality, is Satyam Nadeen. His two books, *From Onions to Pearls* and *From Seekers to Finders*, can be obtained from his website at www.satyamnadeen.com. Particularly interesting in the latter book is his debunking of twelve common enlightenment myths.

6. A website www.sentient.org/index.html contains a selection of useful writings and a treasure trove of links to other websites. This site is the only path to a page written by Galen Sharp, a sage who is gratefully referenced in Chapter 10 of this course.