

CHAPTER 1: KNOWLEDGE

Epistemology and metaphysics are the foundation stones of philosophy. Before we can prove anything about the values we should seek or the rights society should respect, we need to ascertain the basic features of the world we live in (metaphysics) and the means by which we know it (epistemology), including the nature of our rational faculty and the requirements for objective knowledge. In the Introduction, we surveyed the essence of the Objectivist epistemology to explain the *method* that we are employing in this book. We can now begin our analysis of the *content* of Objectivism—the key ideas and their logical relationships—by diagramming the central tenets of the Objectivist epistemology. We will begin with the axioms of metaphysics and epistemology, and then go on to the perceptual bases of knowledge, the nature of conceptual integration, and the view of knowledge as hierarchical and contextual.

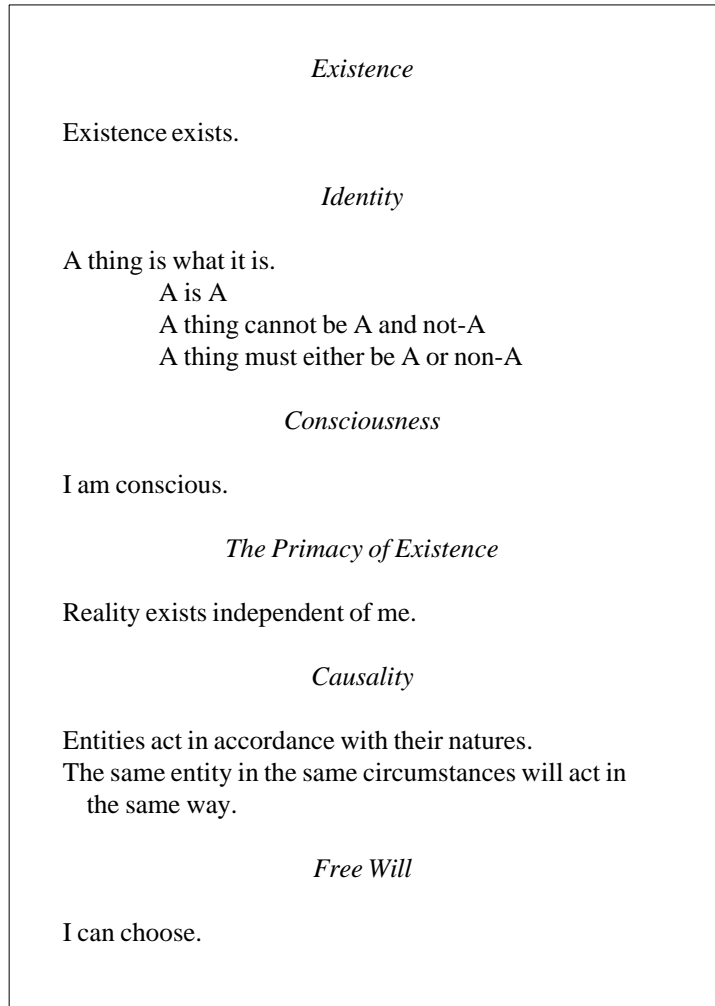
Axioms

In *Atlas Shrugged*, Ayn Rand wrote that “... the morality of reason is contained in a single axiom: existence exists—and in a single choice: to live.”¹ This statement has provided the basis for the false characterization of Objectivism as a philosophy that follows deductively from some initial premise or premises. Although the structure of Objectivism is logical, it is not rationalistic. In fact, Rand’s meaning in saying Objectivism is “contained in” the axiom of existence is that her philosophy is based entirely in facts of reality.

Metaphorically, we may speak of Objectivism as a kind of edifice, with a foundation and a superstructure. In this “edifice,” the “foundation” is the evidence on which the structure depends. This includes the axioms: as we will see, they are statements validated directly by perceptual observation. But the foundation also includes all the concrete judgments we make about the particulars we observe, including objects, events, people, emotions, social interactions, etc. In this respect, the axioms play a specific role as integrators of our knowledge, by specifying the goal of knowledge: the identification of what exists, and the basic method of knowledge: logic. Thus the axioms stand in relation to philosophy, and to all knowledge, much as basic facts of physics stand in relation to the construction of a building. In architecture, physical law summarizes the inescapable facts that the architect must take account of in designing a structure, from the foundation up to the roof. Similarly, any structure of knowledge, of any subject whatsoever, must take account of the basic inescapable facts that the axioms formulate. To use a different metaphor, we can say that knowledge is like a growing child taking in new sustenance and fuel (new perceptual evidence) from his environment every day, with the axioms functioning like the

genetic code which determines how the material from the environment will be incorporated into the growing structure.

Diagram 1.1: The Axioms of Awareness



Objectivism is founded on the axioms of Existence, Identity, Consciousness, and Causality. To grasp what these axioms refer to, we must attend carefully to certain inescapable facts of our experience. For example, as you read this page, you have not the slightest doubt that this book is what it is and not

something else. It is *The Logical Structure of Objectivism*, and not *Moby Dick*, a lawnmower, or some other thing: you take it for granted that it has an *identity*. You have no doubt that you will be able to turn the pages with your fingers, since that is how pages act: they will not ignite on contact, for instance. In other words, you take *causality* for granted. You count on the fact that you can see the book, and grasp its contents with your mind. In other words, you take your own *consciousness* of the facts of reality for granted.

Some philosophers argue that, while necessary to function in the world, these axioms are *arbitrary* assumptions, based on a leap of faith. Objectivism, on the other hand, recognizes that they are objective. The axioms are self-evident, omnipresent, inescapable aspects of existence of which one cannot help but be aware—in fact, one can notice these facts in any experience just as we did, above, in the experience of reading. When one is aware of any particular fact, one is aware of something in reality. Although the details of the things one is aware of differ from one instance of awareness to the other, it is always the case that **something exists of which one is conscious**. The axioms are the full expression of this ubiquitous fact.

The axiom of **Existence** states that **something exists**. This is the most basic fact of reality. It is simply the statement that there *is* reality; that whatever there is, *is, that whatever one perceives is there to be perceived*. One implication of this fact is that the word “nothing” can only be used in a relative, but not an absolute, sense. If we see an empty closet, then we may say “there is nothing in there.” But what we *mean* is that there is *nothing but* the closet, the air, and the space it occupies: that is still *something*, that is still some existent. Even the vacuum of outer space is an existent.²

The axiom of **identity** emphasizes another aspect of existence: that **a thing is what it is**. We may say that every existent *has* a nature, but in fact what we mean is that every existent *is* its nature.³ The axiom of identity is the recognition that existents exist in some definite way. To be something is to be something specific and determinate. There is nothing vague about reality, and nothing contradictory. The axiom of identity is the basis for the principles of logic by denying the existence of contradictions in reality. Ayn Rand described logic as “the art or skill of non-contradictory identification.”⁴ If you think about it, you will see that there is something wrong in the very *idea* of a “contradiction in reality.” We can have contradictory *ideas*, when we think of something as being one way, and not that way, at once. But a thing could never both have and not have its nature: however a thing is, *is* its nature. In this way, the axiom of identity can be expressed in terms of the basic laws of logic:

- The “Law of Identity:” **A is A.**
- The “Law of Non-Contradiction:” **A thing cannot be A and not-A.**
- The “Law of the Excluded Middle:” **A thing must either be A or non-A.**

Logic is the skill of ensuring that our ideas conform to these basic aspects of reality.

Notice that neither axiom makes any specific statement about the nature of what exists. For example, the axiom of existence does not assert the existence of a physical or material world as opposed to a mental one. The axiom of identity does not assert that all objects are composed of form and matter, as Aristotle said. These things may be true, but they are not axiomatic; the axioms assert the simple and inescapable fact that whatever there is, it is and it is something. The axioms and their corollaries are not rich in specific content that would allow specific inferences. Rather, they are the context in which one thinks about specific content. Their primary role is methodological. Their most common use is as tests of the validity of an idea in the most general sense. The laws of logic, for instance, provide such a test.

The most basic fact that we experience is that we are aware of some existent. The axioms of existence and identity pertain to what we are aware of, while a third axiom, the axiom of **consciousness**, is the recognition that we are *aware*. From the first person perspective, this is the recognition that **I am conscious**. Of course, only self-conscious beings like ourselves could *recognize* that they were conscious, but the axiom refers to the actual presence of consciousness in any of its forms, from the simplest sensation to complex perceptions to conceptual knowledge of the highest order. Just as the axiom of identity asserts that things have identities, without specifying what those identities are, the axiom of consciousness asserts that one is in cognitive contact with something, regardless of what form that contact takes. But in any of its forms, consciousness is always the awareness of something. To be conscious of nothing is to be unconscious. There is always some content of which one is aware. This fact is evident in any experience of being conscious.

Before we consider any other axiomatic statements, let us pause to clarify the epistemological status of axioms as such. It is a source of considerable confusion in philosophy in general, and even among Objectivists. Axioms have two essential features that we need to discuss: they are *self-evident* and they state *fundamental* facts.

To say that a proposition is self-evident is to say that it asserts a fact that we can perceive directly. As you read these pages, for example, it is self-evident that the printed characters on the page before you are black. The proposition “The characters are black” is about a perceivable attribute (the color) of a perceivable object (the printed characters). The proposition simply puts into words, i.e., into a conceptual formulation, a certain fact of reality that you can see directly. There is no need to infer this fact from other facts of which we’re aware because we are already aware of this fact through direct perception. Such propositions are called perceptual judgments because they formulate the content of perceptual observation.

An axiom is not a perceptual judgment, because it is universal in scope. The axiom of identity, for example, is a proposition applicable to everything that exists. For that reason, many philosophers have assumed that axioms must have some basis other than sense perception. But Objectivism holds that axioms are self-evident in exactly the same way that perceptual judgments are: an axiom asserts a fact that can be directly perceived. To see why, consider again the perceptual judgment that the characters on this page are black. This judgment identifies the specific color of the characters, distinguishing them from objects with different colors. If you were looking elsewhere in your perceptual environment, you would make different perceptual judgments to identify the features of the things you see. But there are certain aspects of what you see, looking at the characters, that would not be different if you looked elsewhere. One feature is the simple fact that the characters are *there*. They exist. If you looked elsewhere you would see different things but they, too would exist. Whatever you perceive, whatever kind of thing it may be, it will always be true that it is. That single word—it *is*—describes the common, invariant fact of existence. This fact is what the axiom asserts, and it can be validated in any act of awareness.

The same is true for the axiom of identity. Each of the characters on the page has a specific identity, a specific shape and color. If you look elsewhere, you will see things that have different shapes, color, and other attributes. But now try to imagine seeing something that has no identity at all, something with no shape, no color, no properties whatever. It's impossible to imagine such a thing—there's literally nothing there to imagine. Whenever we perceive our environment, we are aware of something specific. That is what the axiom of identity asserts, and that fact, like the fact of existence, can be validated in any act of awareness.

Finally, consider your awareness of the printed characters. Certain aspects of your awareness are distinctive to this situation. Perhaps your eyes are tired and the characters a little blurry. They appear a certain way to you, determined by the lighting, your distance from the page, and other factors. In a different context, your experience would be quite different. But one thing that would not change is the fact that you are aware. Regardless of the nature and content of your conscious experience, you are conscious of something. This is what the axiom of consciousness asserts.

In other words, the axioms are like perceptual judgments except that they formulate what we perceive in much more general terms, terms applicable to *anything* we might perceive. That universal character is the source of the second major feature of axioms: their fundamentality. The facts of existence, identity, and consciousness are features of reality contained in all other facts, so they can't be analyzed in terms of those other facts. In the same way, the axioms of existence, identity, and consciousness are implicit in all of our knowledge,

and so cannot be derived from any prior knowledge. Any effort to prove them by inference from other facts would be circular. How, for example, would you prove that there is something that exists? What evidence would you cite? Whatever the evidence might be, it would have to be something that *exists*. Again, how would you prove that you are conscious? What prior knowledge could you offer? Since knowledge is a form of consciousness, your “proof” would presuppose the fact you are trying to establish.

The inability to prove the axioms does not make them arbitrary. As we have seen, they are self-evident, founded directly on perceptual awareness. But there is a further point to be noted. The axioms are unprovable because they are fundamental. They state bedrock metaphysical facts and so they are implicit in all other knowledge: they are inescapable. And this feature of inescapability means that the axioms cannot coherently be denied. The person who asserts that nothing exists, for example, is taking for granted that he and his statement exist. The person who denies that he is conscious is exercising consciousness in that very act. And, as Aristotle first pointed out, the person who denies the law of non-contradiction—i.e., who asserts that contradictions exist—is implicitly assuming that his own statement to that effect is true and not at the same time false. In other words, the act of denying the axioms actually reaffirms them.

The fact that one can’t deny the axioms without reaffirming them is a sign of the fundamentality of the axioms and their inescapability. In pointing this out, however, we are not giving a proof that the axioms are true. Such a “proof” would beg the question. How could we offer a proof without assuming that we and our statements exist, that we are conscious, and that contradictions can’t exist—the very axioms to be supported? It is a classic error that many people make in discussing the axioms of Objectivism to think that they have proven them through such arguments. The proper response to someone who denies the axioms is to refuse to engage in argument or discussion until he acknowledges the basic presuppositions on which all argument and discussion—and indeed all knowledge—depend.

A corollary of the axioms of existence, identity, and consciousness is the principle known as the *Primacy of Existence*. Consciousness is an active process of identifying and grasping facts of reality. We are all aware that we are unable to make reality conform to our thoughts, that “wishing won’t make it so.” We cannot even originate the basic contents of our minds. Awareness is always awareness of some content. As Ayn Rand put it: “A content-less state of consciousness is a contradiction in terms.”⁵ The primacy of existence asserts that reality exists independently of our awareness of it, and that consciousness is metaphysically passive: its own contents depend on what exists in reality.

Of course, a normal person’s mind contains both items of awareness that clearly are of reality, and others, such as dreams and fantasies, that do not appear to be clearly connected to facts. Because of this, many philosophers

have thought it to be an open question whether the contents of the mind originate in reality, or in consciousness. The most thorough exponent of the latter view, that of the primacy of consciousness, is Immanuel Kant, but the idea that reality might conform to the mind has had a currency preceding and extending beyond Kant's influence. The primacy of consciousness, however, is not supported by dreams, by the human power of imagination, or by the occurrence of other subjective states. On reflection, we can see that even our imaginings are built up of the stuff of experience. Our dreams partake of the shapes, colors, and sounds of reality, in a confused mixture. The reason they do so is that they are built up out of the experience we have of reality. For instance, one may dream of a strange house, or an endless-seeming fall, or any number of odd experiences, but one can easily see that these are recombinations and reinterpretations of the kinds of experiences we have already had: experience of houses, falling, and so on.

The primacy of consciousness, moreover, is subject to the same self-refutation as is the denial of any other axiomatic principle. A person who asserts that the facts of reality depend on his own consciousness is making a claim about the nature of consciousness and reality. He intends his claim to be taken as objective, not as a reflective of his own whim. After all, he is asserting that the primacy of existence is false—not just for him, but even for its adherents. So he is assuming that there are facts, and that the function of his mind is to grasp them as they really are, at least in his own case. And that's inconsistent with his assertion of the primacy of consciousness.

The primacy of existence is the basis for the objective orientation of our knowledge. As we will see, the fundamental criterion for knowledge is its connection to reality, not any internal criterion such as how good our ideas sound, or how coherently they fit together.⁶

To continue with our survey of the axioms: Ayn Rand described the axiom of **causality** as the axiom of identity applied to actions⁷. To understand what this means, we need to consider a further aspect of the basic nature of existence: existents exist in distinct, basic *categories*, none of which is precisely reducible to the others. The most basic category is the *entities*. Entities are existents that exist independently of other existents. A piece of iron is an entity, for example, as is a puff of air. By contrast, existents from other categories are aspects of entities or relationships among them.

Entities can be analyzed into *attributes*, such as shape and color, which exist only in entities. An attribute is not a component part that can exist independently. For example, the shape of a table is an attribute. By contrast, its parts, such as its legs, are themselves entities. We can separate the leg from the table, but we cannot remove the particular shape out of the table. *Relationships* exist among entities, as when a book is *on* the table, or the table stands *between* the sofa and the chairs. Entities also act, changing their identities over time.

Actions such as dances have their own identities, but they are always actions of some entity, e.g. a dancer. Those familiar with physics might think of the elementary particles as the most basic kind of existents, but elementary particles are actually entities, and like other entities, possess attributes, act, and stand in relation to other entities.⁸

Causality is the principle that **entities act in accordance with their natures**. Because actions are aspects of the entities that act, the actions are part of the identity of the entity. But the law of causality also says an action is not a primary, independent aspect of a thing's nature, unrelated to other aspects. The law says that any action depends on underlying attributes of the thing, such as its mass, material composition, and internal structure. This view of causality as a relationship between an entity and its actions comes from the Aristotelian tradition in philosophy, and is to be contrasted with the view, associated with David Hume, that causality is a relationship among events, such as the collision between two billiard balls and their subsequent motions. Of course an entity like a billiard ball does react to events in its environment, such as the impact of another ball. Nevertheless, it is still the entities that act, and their actions are determined by their natures. For example, billiard balls react to collisions as they do because they are rigid and spherical; an irregular blob of soft wax would react very differently. An event per se is not a causal agent but is simply a span of time in which entities act. Notice also that the ambient factors are the effects of other entities, and not the effect of an abstracted conception of those effects, such as the laws of physics. The laws of physics, and of science more generally, conceptualize the causal properties of entities. When a ball falls toward the ground, it is the gravitational power of the Earth that draws it down, not the law of gravity.

Because actions are determined by the nature of the entities that act, we can generalize from the actions of one entity to others of a similar nature. In other words: **the same entity, or an exactly similar one, will act in the same way in exactly similar circumstances**. This implication of the law of causality is sometimes referred to as the uniformity of nature, and it is what makes inductive reasoning possible. Scientists cannot test each and every sample of water in the world to determine the temperature at which it boils, but they don't need to. By testing a limited number of samples, and varying the conditions that might affect the boiling point, they determine that their experimental samples boil at 212 degrees in normal atmospheric pressure. The law of causality then allows the inference that all water in that condition will boil at the same temperature.

The uniformity of nature has sometimes been taken to imply the thesis of *determinism*: that all actions of all entities are determined by their own natures and by antecedent conditions in such a way that, if one could know the nature, position, and every other fact about each entity at one point in time, one could predict everything that would happen thereafter. The immense success of

physics and other branches of science in using local assumptions of determinism to explain various phenomena and create new technologies has given many people the impression that determinism is an axiom, that it is the law of causality. However, determinism is in fact more narrow than causality: some actions may be determined by antecedent conditions, but others may not. Speaking fundamentally, events do not proceed from other events, but arise out of the natures of the entities that act. It is a matter of the identity of the entities in question to what extent ambient factors matter. This is why understanding causes requires an investigation to determine the *relevant* causal circumstances.

For example, physics tells us that billiard balls move in a way that is rigidly necessitated by the impacts upon them in such a way as to conserve momentum. A living organism, however, has a vastly more complex internal structure, with the capacity to originate its own actions; for a plant or simple animal, an environmental condition serves as a stimulus to action but the actual energy fueling the action comes from within the organism. In the case of animals that possess consciousness, their internal conscious awareness of the environment and their conscious desires are the primary causes of actions. And in human beings, the self-conscious awareness of our mental states and operations adds a further layer in internal control of action. In the face of this enormous complexity and diversity in nature, the thesis of determinism makes too restrictive a claim. Any given entity's actions result from the interplay of its internal nature and its external circumstances, but the specific nature of this interplay is a matter for the sciences to investigate. All that the law of causality says as a philosophical axiom is that an entity's actions are governed by its nature, and that entities with the same nature will have the same capacities for action.

This point about causality is especially important to keep in mind in regard to the next and final axiom, the principle of *free will*. Just as the axiom of consciousness is stated from the first-person perspective from which we grasp it, so the fact of free will is stated in the first-person: I have choice. The statement expresses the recognition that one must initiate one's own actions as a first cause, a prime mover of oneself; and that one can control which actions one takes, choosing among possible alternatives. The basis of this control, in the Objectivist view, is the choice to think. When we carefully examine what is involved in making any choice, we see that the essence of our power of volition lies in the control of our attention. This includes the power to focus our minds in general, as opposed to letting them drift. It also includes the power to focus on one specific content of awareness rather than another—one specific idea, issue, question, person, action, or other object of conscious awareness.

Of course, free will does not mean that one's actions are causeless; rather they are caused by one's own volition, which is itself a capacity of human nature. Free will means being able to control and initiate certain actions; it does not entail a capacity to be unaffected by the world around one. One can choose

whether to exert one's muscles against gravity, but one cannot choose, as a mere act of volition, not to be affected by gravity. In the mental sphere, one can choose whether to solve an algebraic equation if one has that skill, but one cannot choose to acquire that skill without effort. One can choose how to respond to the loss of a major value, but one cannot choose whether to feel sorrow at the loss.

Free will is compatible with the law of causality as it is stated above in terms of the uniformity of nature. The capacity to initiate and control our thoughts, and thereby our actions, is a capacity that all human beings have in virtue of their natures. Indeed, we now know enough to say that humans possess this capacity in virtue of their highly developed nervous systems. When we exercise this power of choice, we ourselves, as entities, are the causes of our actions. But free will is *not* compatible with the narrower doctrine of determinism, which says that all actions are necessitated by antecedent factors in accordance with universal causal laws. If this were true, the outcome of every choice would be determined by previous states of mind and of the environment, which are in turn determined by even earlier states, tracing back to factors entirely outside the person's control, such as his genetic inheritance and the actions of his parents (and *their* parents, and theirs, etc.).

How do we know that free will exists and that determinism is false? Like any other axiomatic fact, free will is self-evident. We can directly observe the exercise of our capacity to initiate thought and choose among alternatives, though in this case the observation is introspective. Just as any object of awareness is an instance of existence and identity, and any act of awareness an example of consciousness, so any exercise of thought is an instance of choice, and we can directly identify it as such. When we focus our minds, we can be directly aware that we initiated the act and could have withheld the effort. When we choose to concentrate on a task at work, we can be aware that we could have chosen to think about an issue in our personal lives. When we are influenced by the kind of mental factor that determinists see as necessitating—say, a strong emotion—we can be aware that we allowed the feeling to affect us and could have chosen to be more objective.

As with the other axioms, too, this universality is a reflection of the *fundamental* character of free will. In the Introduction we drew a distinction between the perceptual level of cognition and the conceptual level. Perception is the direct and automatic awareness of objects present to the senses; conceptual thought involves the integration of perceptual data into new concepts and conclusions. Free will pertains specifically to the conceptual level (and like conceptual thought, as far as we know, it is limited to human beings)? The integrative processes of conceptual thought must be initiated by conscious effort, and they must be consciously directed in such a way as to avoid error and exclude subjective whims, biases, and preconceptions. If we could not control

our integrative processes volitionally, we could have no confidence in the validity of their products. In this respect, volition is a fundamental feature of conceptual thought, and the choice to think might also be described as the choice to be objective, to be governed by facts rather than whims.

In light of this fundamentality, free will cannot be proved. Any purported “proof” would beg the question by presupposing that we were free to evaluate the validity of the proof, just as any purported “proof” of the law of non-contradiction would presuppose that very law. As with the other axioms, proof is not needed, since the axiom of free will is self-evident: its truth can be observed directly. As with the other axioms, however, the fundamentality of the axiom means that it cannot be denied without self-contradiction: a person who denies free will is saying by implication that his own thought processes, including his belief in determinism, are determined by antecedent factors over which he has no direct control. He is saying that he can’t help being a determinist. Yet in arguing for that thesis, he is presupposing that he was free to evaluate the evidence for the thesis and that he accepts his conclusion because it is valid. In other words, the content of his conclusion is incompatible with the fact that he is trying to prove it—just as, when a person denies the axiom of consciousness, the content of his assertion is not compatible with the fact that he asserts it.

In spite of the axiomatic character of free will, it is quite common to meet people who deny it, or at least attempt to wiggle around it by arguing that what appears to be volition is merely an effect of deterministic causality. The main reason for this in modern times is the presumption that all actions can be explained by the causal properties exhibited by elementary particles when studied in isolation. Pursuing this theory rigorously has led to enormous advances in scientific theory and technology, especially in the past three centuries. Many people regard this view, which we might call the “Clockwork Universe” view, as equivalent to the view that the universe is intelligible.¹⁰ Either we are determined, they say, or it is *deuces wild*. But as we have seen, there is no need to equate causality with determinism. Furthermore, while it is one thing for science to explain away the traditional idea that light things fall more slowly than heavy things, it is quite another matter to attempt to explain away what is self-evident. Science proceeds by isolating factors precisely so that it can show — i.e. make it evident — whether a claim is true. One can test how objects fall in a vacuum, for example, to show that light things fall just as quickly as heavy things. But one cannot make evident a denial of something that is already evident. To deny that evidence, science must attempt to deny the validity of the most basic experience of the mind, while depending on the mind to recognize its new “evidence.”

Perception as the Basis of Knowledge

With the axioms established as a foundation and a set of methodological guidelines, we can now begin the validation of the rest of the Objectivist epistemology. The major tenets of the epistemology rest on facts about the world and about the nature of our cognitive faculties. Our goal is to understand the logical connections between these facts and the epistemological conclusions, so we will begin using the technique of logical diagrams described in the Introduction.

The central principle of the Objectivist epistemology is: *conceptual knowledge is only acquired by reason*¹¹ It is due to this fact, and the distinctive role of such knowledge in human life, that we recognize reason as the distinguishing characteristic of mankind; if it were not the case, this philosophy would need a new name. But what is the basis of this principle? How would one go about establishing it? We need to examine the features of knowledge in order to ascertain why reason is its only source, and the features of reason to ascertain why it is suited to this role.

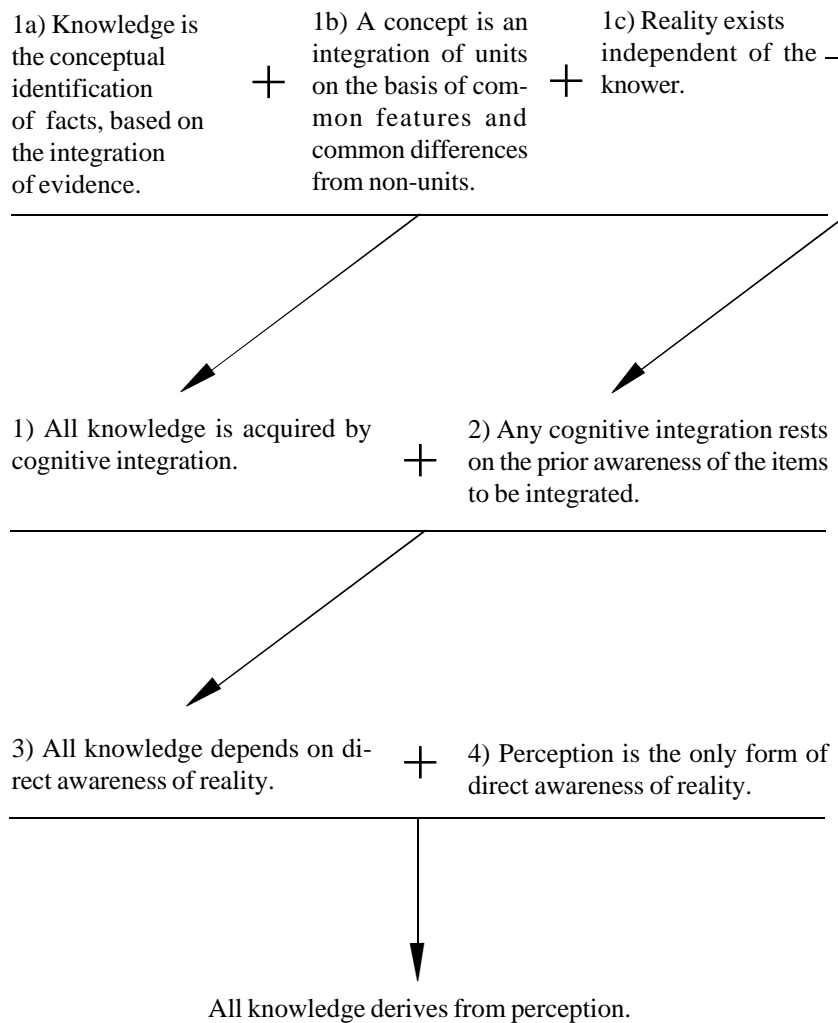
Our point of departure is the recognition that knowledge is acquired by conscious integration, which is stated as **Premise 1** of Diagram 1.2. When we discussed this point in the Introduction, we appealed to common sense, but we can now make its logical basis explicit: conceptual knowledge is abstract. Even when our knowledge is concerned with a particular thing in reality, as when we identify that a certain person is sick, what we know is that the individual has a certain abstract property, sickness. Yet we can observe introspectively that we have no direct perceptual awareness of abstractions. This is an inductive basis of a negative kind.

There is also a positive inductive basis. In the Introduction we listed some of the cognitive processes by which we acquire knowledge. If you refer back to that list (page #*), you will see that the processes are of two types: inferences by which we generalize, draw conclusions, weigh evidence, and test theories; and concept-formation, by which we acquire new concepts for types of things and for their attributes, actions, and relationships. These two basic processes are formulated in Premises 1a and 1b, which offer definitions of knowledge and concepts, respectively. **Premise 1a** says that **knowledge is the conceptual identification of facts, based on the integration of evidence**; and **Premise 1b**, that **a concept is an integration of units on the basis of common features and common differences from non-units**. These two premises are the logical basis for asserting that knowledge as such is acquired by cognitive integration, and both of them are starting points in the diagram because they are generalizations from what is directly observed. Premise 1b should be understood in the context of the Objectivist theory of concepts, as formulated by Ayn Rand in her *Introduction to Objectivist Epistemology*.¹² There, she wrote: “A

concept is a mental integration of two or more units which are isolated according to a specific characteristic(s) and united by a specific definition"; our premise offers a more general but consistent definition.

Diagram 1.2: The Basis of Knowledge

Inductive evidence: 1a, 1b, 4: Introspection, neuroscience, psychology.



A concept is the form of thought we use to refer to many different, but similar, things as if they were the same. For example, people who understand the word “flight” have formed a concept that unites the motions of birds, airplanes, helicopters, pterodactyls, balloons, and other things that float in air, into a single idea based on their similarity. Notice that although all the individual machines and creatures that fly are distinct and different from one another, and although the motions they make while flying are not exactly the same, nevertheless the motions are all similar, within a limited range of difference. That range is the characteristic by which the units of the concept are distinguished from all other things. In the case of “flight,” the characteristic is motion through the air. Now, “flight” is a fairly broad concept, so motions as different as the floating of blimps, the flapping of small birds, and the soaring of rockets are included in it. By contrast, “flapping” is a narrower concept that pertains to a more limited range of similar actions than “flight” does.

When we use words, we mean things by them. Concepts are the means by which we do so. Words are concrete, perceptible markers we use to distinguish, remember, and communicate our concepts. Note that in the Objectivist view, a definition is like a guidebook to the units of a concept: it gives us essential, contextual information about the units that enables us to recognize them. The *meaning* of the concept is the units, the existents it refers to, not the definition. Thus, a concept’s definition can be refined as our knowledge increases and our needs change, while the meaning of the concept stays the same. The development of definitions is natural and quite common. A child, for example, may at one age define a fish as “a creature that swims,” and only later incorporate knowledge of scales, gills, and cold-bloodedness into a new definition.

Defining our terms ensures that we understand their significance. As we proceed through the structure of Objectivism, we will need to offer definitions of many concepts as they become relevant. This is why we began our analysis of knowledge with two definitions. Note that a definition is a kind of induction from evidence. Most definitions establish an essential characteristic on the basis of which an objectively similar group of things or events may be integrated. Some concepts, like “color” or “length” are so basic that one must grasp them ostensively. In such cases, the definition of the concept can only tell one where to look, as it were. In both cases, a definition is a guide in terms of one’s current context of knowledge that tells one how to determine which objects are subsumed under the concept, and which are excluded.

Ayn Rand wrote her longest non-fiction work on the theory of concepts alone. Some readers may wonder, then, why we do not include more of the details of the theory of concept-formation, and the proper use of language, in this work. We have restricted our treatment to the facts that the essential, logical structure of the philosophy requires. For instance, we will be relying on the fact that reason is the means to objective knowledge, and the fact that knowledge

has its basis in perception. But we will not be explicitly discussing the details of Rand's "measurement-omission" theory of concepts, because, although the theory represents a significant contribution to epistemology at the scholarly level, one does not need to grasp its fine points to understand the facts about cognition from which the rest of Objectivism follows.

Readers who debate the ideas of Objectivism, particularly in a university environment, will often encounter people who raise technical epistemological objections with the purpose of undermining the systematic conclusions we have just examined. In such encounters, it is important to bear in mind that the positive account of knowledge we have presented in this chapter is sufficient to provide the basis for logical inquiry and the further structure of the philosophy. More technical accounts cannot eliminate the evidence that underpins our basic conclusions in epistemology, and for this reason accounts of knowledge that differ with those conclusions will tend to be false or even self-refuting. This is why it is a useful technique in debates of this sort to recur to the systematic positive account, and confine technical dispute to the context of a rational explanation for the fact of knowledge (a skeptic, for example, is usually hard-put to defend his own theory rather than attack yours). Don't let your opponent shirk the responsibility of providing an adequate positive account of his own.

We have said that Premise 1 is supported inductively through Premises 1a and 1b. That's true, but it's not the whole story. We observe that our minds engage in certain processes of integration, and that the two main forms of integration are concept-formation and inference. But what tells us that these processes are *valid*, that they represent knowledge of reality rather than constructions of our own subjective devising, like dreams, wishes, and so on? This aspect of the three statements depends on the primacy of existence, which tells us that reality exists independently of the knower and that consciousness depends on reality for its contents. The primacy of existence is expressed in **Premise 1c** as **reality exists independent of the knower**. It is the axiom that one is aware of reality, and, as an axiom, it is self-evident rather than being inferred by induction. The inductive element in these statements concerns the *form* that integrative processes take.

The primacy of existence also has an implication regarding the data or cognitive material that is integrated by these processes. To integrate, we must integrate something. At higher levels of knowledge, we often form concepts from earlier concepts we already possess, and draw conclusions from earlier conclusions we have already reached. If we were not concerned about reality, the processes of integration could extend onward without limit, in an infinite chain; or they could circle back on themselves so that concepts and conclusions mutually support each other without any foundation. But this would leave our knowledge hanging in mid-air, unconnected with reality. The primacy of existence, however, tells us that our knowledge is and must be connected with real-

ity. This key implication is stated as **Premise 2: any cognitive integration rests on the prior awareness of the items to be integrated.** If we form one concept from earlier concepts, those latter concepts must already have been validly formed by a prior process of integration, and similarly with conclusions inferred from earlier conclusions. Ultimately, then, our concepts and conclusions must trace back to some form of direct cognitive contact with reality that is not itself the result of a process of integration. The obvious conclusion to be drawn from Premises 1 and 2 is that **all knowledge depends on direct awareness of reality**, which is stated in the diagram as **Premise 3.**

Premise 4 asserts that **perception is one's only form of direct awareness of reality.** This is another inductive claim, the evidence for which is also primarily introspective. We observe that perception is the mode of awareness in which we grasp objects directly, automatically, without cognitive integration. However, scientific evidence of the nature of our senses and their physiological basis helps us to better analyze and understand the modalities of perception and the processes that underlie them. We have sensory awareness of our selves and surroundings in three broad forms: 1) Exteroception is the awareness of things and events in the external environment through sight, hearing, touch, taste, and smell. 2) Proprioception is the awareness of the location, orientation, and movements of one's own body. This is the sense that allows us to reach out in a certain direction in the dark, for example. 3) Enteroception is the awareness of pain, hunger, thirst, and other internal conditions of the body. Each of these give us the awareness of existents, an awareness that has been automatically integrated to varying degrees before we are consciously aware of it.

Some philosophers and scientists have attempted to characterize our senses as providing momentary, disintegrated flashes of data, as when one has a general, poorly localized pain. In this view, our sight presents us with color patches, not entities. Our hearing gives us isolated impressions, not the patterns of vibrations that make up sound. This is incorrect. It is true that our perception involves receptors that respond to light, vibrations, chemical structure, and so on. Indeed, if it did not involve some causal interactions with its objects, it could hardly make us aware of them. We are not aware of our receptors, however, but rather of the objects and actions toward which our awareness is directed. The evidence of this is available to anyone who attends to his perceptual awareness.¹³

There are also two important philosophical objections to the validity of our external perceptual awareness. The first is the Kantian objection, often called the *argument from perceptual relativity*. This is commonly encountered in the following form: "We don't see things the way they really are. You see a solid table, but it's really mostly empty space." The reply to this is that one must perceive things by some means, in some *form*. The form of perception derives from the interaction of our senses with the natures of objects of awareness. The

same object may be perceived in any number of forms. For instance, in the daylight a tree may appear green, and the pattern of its bark may be evident. At night, it is a dark, rustling shadow. In both cases, the tree is what it is, and its form is the way it appears given one's means of perception and the effects of the environment (in this case, the availability of light). Similarly, while people get their clearest perception of objects through sight, bats get theirs through an extraordinarily integrated hearing and echo-location sense. Nevertheless, both a bat and person perceive an object such as a tree in a way that gives each of them awareness of the tree's characteristics. More generally, any perception is of its object, though different perceptions can occur through different modalities.¹⁴

The second objection, known as the *argument from hallucination*, is that our experience may simply be disconnected from reality: "How do you know you're not dreaming?" The reply to this is that one only knows what dreams are by contrast with one's perceptual experience of reality. Dreams are strikingly insubstantial, in a way that perception clearly is not. Indeed, one would not think of dreams as unusual, were one not aware of the radically objective awareness one gains through perception.

In the case of both objections, a person who upholds them does so in contradiction to his own experience and actions. After all, in daily life he depends on his perception in order to know facts and to get around. If someone is unwilling to recognize this fact, he is not likely to benefit from extended debate on the subject.

In saying that sense perception is our only form of direct awareness of reality, we do not of course mean to deny the validity of introspection. Just as our knowledge of external reality begins with direct perceptual awareness, which we then integrate into concepts and then into propositional knowledge, so our knowledge of our inner conscious life begins with the direct introspective awareness of experiences, thoughts, and feelings, which we then integrate into concepts of consciousness and propositional knowledge. As objects of self-knowledge, experiences, thoughts, and feelings are of course part of reality: they exist and have specific identities, they are subject to causal law, and our knowledge about them is subject to the same standards of logic and objectivity as any other knowledge. Nevertheless, as conscious phenomena, they involve the awareness of things in external reality. We must perceive external reality first before we can introspect on our perceptions. As Ayn Rand put it, "A consciousness conscious of nothing but itself is a contradiction in terms: before it could identify itself as consciousness, it had to be conscious of something."¹⁵ Thus introspection, while direct, is dependent on sense perception. It is an instance of our conclusion that all knowledge derives from perception, rather than an exception to it.

The premise that perception is our only form of direct awareness does,

however, deny the existence of other alleged modes of direct awareness. It denies the existence of *revelation*, usually conceived as the direct awareness of some aspect of reality by some means other than sense-perception. Mystics have spoken about experiencing God directly, about communing with other minds without benefit of speech, and about seeing into the future. Some philosophers have spoken of grasping abstract principles of logic, morality, or other areas by some sort of intellectual intuition. Many people believe in the existence of “extra-sensory” perception in forms such as telepathy.

The problem with these claims is that there is no inductive evidence to support them. The primary inductive evidence we have available is introspection, and we simply do not observe such phenomena. Even those who claim to have had experiences that they consider to be extra-sensory or mystical cannot deny that such experiences are fleeting, rare, and fragmentary by comparison with the torrent of perceptual experience that floods our conscious awareness during every waking moment. Those who make such claims, moreover, have the burden of explaining what causes them. But no one has ever provided such an explanation. The various modes of alleged revelation do not involve any known neural receptors, nor are they a response to any known form of physical energy in the environment. Nor can these revelations be produced reliably by any known process.

Normally, we should consider these claims to be purely scientific issues. After all, if there were evidence for some new form of perception or sensation, this would not change the fact that our knowledge is based on direct evidence of reality, in whatever form we acquire it. E.S.P. and other forms of revelation become philosophically significant because they often serve as a cover for people who deny the dependence of the conceptual level on perception. Mystical knowledge, for instance, is often claimed to be conceptual in form, but not obtained through any process of integration. Such an ineffable, intuitional form of “awareness” is not perception at all, but merely an excuse to treat conceptual notions, wishes, and fantasies as if they were facts. This amounts to denying the primacy of existence.

From premises 3 and 4 we have our **conclusion: all knowledge derives from perception**. The entire edifice of our knowledge of reality is built on the evidence of our perceptual awareness of objects present to our senses. We will recur to this conclusion many times as we examine the structure of Objectivism. Along with the other points demonstrated in diagram 1.2, as we will see, it gives us the essential basis for our main conclusion that knowledge derives from reason.

While our conclusion was deduced from the premises in Diagram 1.2, those premises were based on inductive evidence. Our conclusion draws on that inductive support. It has been argued, however, that instincts represent inductive evidence *against* our conclusion. It seems undeniable that animals are born

with innate knowledge not learned from perceptual experience: how to build nests and rear their young, what sort of food to eat. Humans also seem to have such knowledge, though perhaps on a lesser scale. Infants instinctively seek their mother's breast, avoid heights, and blink when objects approach their eyes, suggesting that they are born with some knowledge of what is good and bad for them. In responding to this objection, it is important to distinguish knowledge from automatic behavior patterns. The concept of knowledge refers to the conscious grasp of a fact and to the retained products of conscious processing (e.g., we all know that George Washington was the first American president even when we are not thinking about him, because we have retained that knowledge from some initial learning experience). Much of our behavior, and many of the skills exhibited in that behavior, are guided by conscious knowledge, but this is not true across the board.

Instinctive patterns of behavior reflect inborn capacities to respond to the environment without the mediation of knowledge, presumably as a result of "hard-wired" connections in our nervous systems. They are examples of the wider phenomenon of adaptive behavior in all plants and animals. When we observe adaptive behavior in any living organism, it is legitimate to ask for an explanation. But the attribution of knowledge as the cause is only one possible explanation, and precisely because we know that all knowledge derives from perception, we know that this explanation is not valid in the case of inborn patterns. There simply is no way an infant, for example, could have the conscious thought "Mother's milk is good for me" without perceiving mother and milk, and without the much more extensive experience and cognitive integration necessary to form the concept "good."

Knowledge is Hierarchical and Contextual

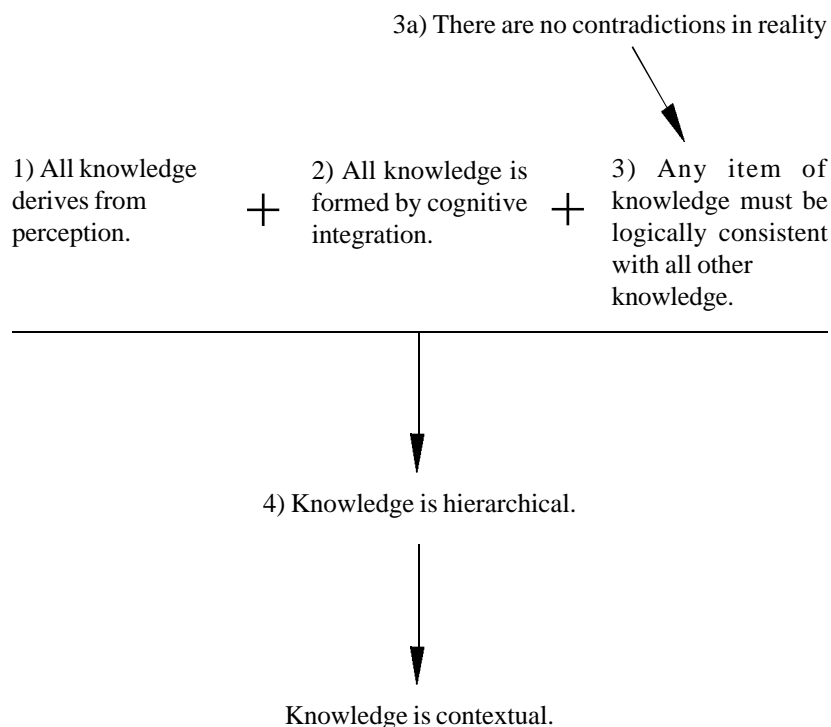
As we noted in the Introduction, Objectivism holds that conceptual knowledge is hierarchical and contextual in character. What is the logical basis for these claims?

As the discussion in the Introduction indicated, the fact that knowledge is hierarchical follows from the fact that it is derived from a perceptual base by means of cognitive integration. Conceptual knowledge is hierarchical in the first place simply because it is *abstract*. Concepts are integrated from the data of the senses and thus subsume a wide range of existents. Conclusions that employ those concepts rely on a wide variety of evidence, also drawn from perception. In this sense concepts and conclusions as such are distinct from and stand upon perceptual awareness. That in itself is a hierarchical characteristic.

However, when Objectivists note that knowledge is hierarchical, they mean also that different items of conceptual knowledge stand in a hierarchical

relationship to each other. Any area of knowledge provides many examples to support this generalization. To take a simple example from everyday life, one's knowledge that the car needs gas is based on a structure of background knowledge about internal combustion, the meaning of the fuel gauge, and other facts about automobiles. In philosophy, to take a more abstract example, one cannot discuss the theory of politics without first establishing or assuming some ethical basis. This is because politics is concerned with the question of which political and legal institutions are required by man's nature and his fundamental values—a matter of ethics. The material integrated by politics includes the integrations of ethics, a prior body of abstract concepts, propositions, and theories. So knowledge is also hierarchical in the sense it includes abstractions from abstractions. The trail that leads from a given integration back to the perceptual level may pass through several intermediate integrations.

Diagram 1.3: Hierarchy and Context



The logical basis for the conclusion that knowledge is hierarchical is represented in Diagram 1.3:

Premise 1 is the conclusion we derived in the previous section. The fact that **all knowledge derives from perception** means that it rests on a foundation. **Premise 2**, which we employed in showing why knowledge has a perceptual base, is relevant in this argument as well because it tells us how the rest of the structure is built upon the foundation. **All knowledge is formed by cognitive integration**—of units into concepts and of evidence into conclusions. To make clear the nature of this integration, and to rule out random or arbitrary integration, we must add **Premise 3: any item of knowledge must be logically consistent with all other knowledge**. That's because **there are no contradictions in reality (Premise 3a)**, which we know from the axiom of identity. Contradictory conclusions cannot both be true, and thus cannot both be knowledge. The implication of these premises is that our **knowledge is hierarchical** (Premise 4). It is not a collection of cognitive atoms standing alone. It is not a floating system of mutually reinforcing beliefs. It is a structure built upon our perceptual awareness of reality through successive integrations governed by logic. This is the full meaning of the term “hierarchical” in the context of the Objectivist epistemology.

A further implication is that **knowledge is contextual, a conclusion** we can infer directly from Premise 4. As we observed in the introduction, the fact that knowledge is built up by successive steps of concept-formation and inference means that the content of any concept or conclusion is related to reality through those steps.

The meaning of these products of integration depends on the integrative processes by which they were produced. The meaning of a concept, for example, is its units: the things it refers to in reality. But we grasp and integrate those units through an active process in which we note their similarities to each other and their differences from other things. Except for the first concepts that we form directly from perceptual observation, we rely on existing concepts in the process of forming new ones. This body of perceptual data and of other concepts constitutes the context of a given concept, and the latter cannot be detached from that context without losing its connection to reality.

In the same way, a conclusion is based on the integration of evidence, and except for the perceptual judgments we form directly from observation, our conclusions rest on intermediate conclusions in a series of inferences tracing back to perceptual data. Those intermediate conclusions, and the whole body of perceptual data on which they rest, along with all the concepts employed in those conclusions, form the context of a given conclusion. The conclusion cannot be detached from its context and still count as an item of knowledge, a grasp of a fact. Over time, moreover, as we acquire more knowledge, information that is relevant to an already established conclusion becomes part of its context.

Because any item of knowledge must be consistent with all other knowledge, new information must be integrated in a logically consistent way with old conclusions; the meaning and validity of such a conclusion is a function of its *full* context, new and old. When the boiling point of water was first shown to be 212 degrees Fahrenheit, for example, the effect of atmospheric pressure was not known. The conclusion therefore did not specifically include the qualification “at sea level.” Now, that qualification is part of the content of the claim.

We have now surveyed the major Objectivist tenets regarding the nature of knowledge: it is based on perception, formed by cognitive integration, logically consistent, hierarchical, and contextual. On this basis, we are now in a position to show why knowledge can be acquired only by *reason*.

Reason and Objectivity

Objectivism employs the term “reason” in both of its two conventional senses: as a process of thinking (“reasoning”) and as the human capacity for such thought. The obvious and most widely understood aspect of this thought process is its use of logic, both induction and deduction. Reasoning means thinking in accordance with logic. (Of course, one does not need to know the discipline of formal logic in order to think in accordance with it: any child can figure out that a thing that barks is a dog — since only dogs bark— without training in the syllogism. Formal logic codifies in abstract terms the kinds of connections that we grasp when we think logically.) So reason is, in part, our capacity for such thought.

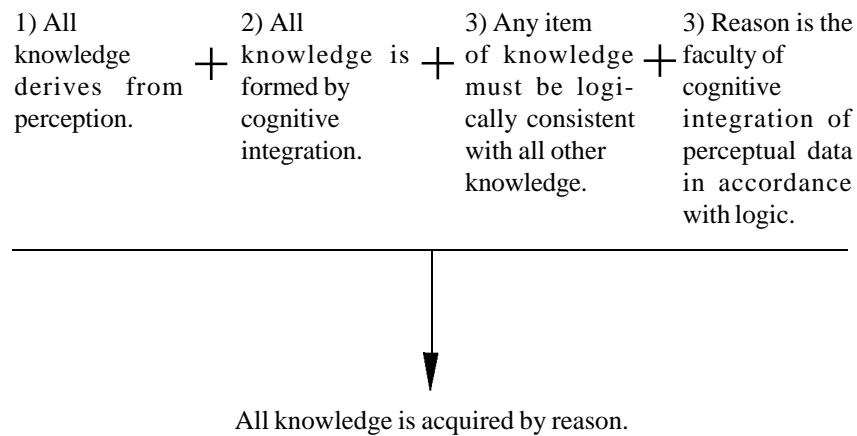
We have seen, however, that logical inference is only one of two main integrative processes by which knowledge is acquired, the other being concept-formation. Without concepts, we could not form the propositions that are the units of logical reasoning. Thus reason must be understood more broadly—and more fundamentally— as the faculty of conceptual integration in accordance with logic. And since the only basic data available for such integration come from the senses, we can define reason as **the faculty of conceptual integration of perceptual data in accordance with logic**.

This definition is **Premise 4** in Diagram 1.4, which shows why all knowledge is acquired by reason:

Premises 1, 2, and 3 state previous conclusions that we have reached about the nature of knowledge. In effect, they specify conditions that a faculty must meet if it is to provide us with knowledge. Premise 4 shows why reason is the faculty that meets those conditions. If we consider conceptual knowledge as the product of a process, then reason is the faculty that performs that process. It is no accident that the same three basic ideas—a perceptual basis, cognitive integration, and logical consistency—are essential to our understanding both of knowledge and of reason. Nor is it the result of arbitrary stipulation on our part.

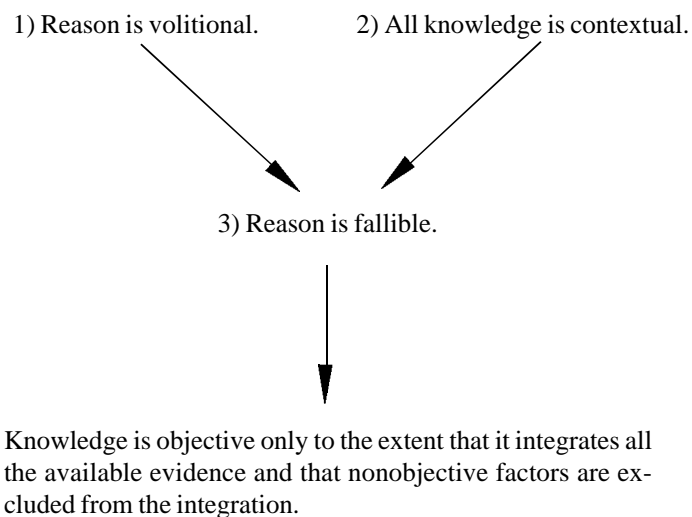
Ultimately, our understanding of knowledge as a product and of reason as a process rest on the same inductive observations about our cognitive functioning. The conclusion that all knowledge is acquired by reason simply states the harmony of process and product.

Diagram 1.4: Knowledge and Reason



It means grounding our concepts and conclusions in the evidence rather than accepting uncritically the products of received tradition or of our own imaginations. To form a more precise definition of objectivity, however, we need to understand the causes of error, the particular factors that make reason fallible. The claim that reason is fallible is so richly supported by inductive evidence, by the countless errors each of us has made or seen others make, that it hardly needs further support to establish its truth. The deductive inferences in the upper portion of Diagram 1.5, however, are important in explaining *why* reason is fallible, and this explanation has an important bearing on our understanding of objectivity.

Diagram 1.5: Reason and Objectivity



The first line of argument is a straightforward. We have already seen that **reason is volitional (Premise 1)**. This is the axiom of free will. We are therefore subject to errors that arise from the exercise of volition. We can come to erroneous conclusions because we have failed to exert the effort to think in the first place, i.e., to maintain a sufficient level of conscious focus. We can err because we failed to embrace knowledge as our highest cognitive goal, subordinating it to some other goal such as agreement with others. We can err by evading relevant evidence, ignoring facts that we prefer not to consider, overlooking a weakness in an argument, or being unwilling to contradict an esteemed belief. In all these ways, the existence of volition implies that **reason is fallible (Premise 3)**.

Another source of error is the fact that **knowledge is contextual (Premise 2)**. What this means, as we saw in discussing the contextual theory of knowledge, is that our concepts are connected to their units in reality, and that our conclusions are connected to the facts of reality, through a complex process of integration. This process is liable to error in many ways other than willful evasion. Conceptual abstraction involves decisions about which factors among one's experience are relevant, and which of those are essential. It is not a process that is easily reduced to a formula. To give more inductive content to this point, let's consider some of the ways in which mistakes can arise:

One may not know, or no one may have discovered, all the proper methods to solve a problem or determine the truth of an idea. Logical thinking is a skill that must be mastered and refined, and one can make mistakes because the level of one's skill is not adequate to the cognitive task at hand.

One may not have considered all the relevant alternatives. One may not have tested all the factors that could have caused a given effect. One may not have considered all the hypotheses that could explain a given phenomenon.

One may not be aware of an important fact that would affect the conclusion. No one is omniscient. Nothing guarantees that all the relevant facts will be available to us, and nothing guarantees that we can always know when a relevant fact is missing.

Objectivity thus results both from the exercise of a choice and from the exercise of a skill. Because it is an attribute of the process of cognition rather than the product, it is not the same thing as truth, and because of the factors just mentioned, an objective process can still result in a false conclusion. Nevertheless, we must define objectivity in light of the factors that give rise to the fallibility of reason. *Objectivity is the voluntary adherence to the facts of reality as the exclusive data of integration and to the methods of logic in the process of integration.* Knowledge is objective only to the extent that one has correctly attended to the context of evidence behind a judgment, and one knows that the chain of inference that leads to one's conclusion is not distorted by evasion, prejudice, wishful thinking, or other non-objective factors. With this concept of objectivity in hand, we can see why the fallibility of reason implies the conclusion of our diagram: **knowledge is objective only to the extent that it is based on evidence and that one has excluded nonobjective factors from the integration.**

Emotions and Reason

Diagram 1.4 concludes that all knowledge is acquired by reason. This means not only that we *can* acquire knowledge by means of reason but also that knowledge can be acquired *only* by reason—that reason is the only source of knowledge. This is the significance of the Objectivist idea that reason is an

absolute.

How do we know that no other method or faculty can produce knowledge? Since this is a negative claim, it can be established only by considering alternative methods, although the burden of proof lies with those who make the positive claim that some alternative method can meet the conditions for objective knowledge. We have already considered some of the alternatives—revelation and instinct—urged most frequently by those who deny the absolutism of reason and we have seen why they are not in fact sources of knowledge. But there is one remaining alternative we should consider: emotion. A central tenet of the Objectivist epistemology is that emotions are not forms or tools of cognition. What is the basis for this tenet?

It is important at the outset to deal with a frequent source of confusion. Unlike revelations or instinctive knowledge, emotions certainly exist; they are pervasive and highly important features of conscious experience. As real phenomena, they can be known, and they are important barometers of one's state of mind and the condition of one's life. We shall have much to say later about happiness, for example, in this light. Knowledge about what we are feeling is acquired like any other knowledge—by observation (in this case introspective) and by rational analysis of what we observe. So there is no doubt that, as *objects* of knowledge, emotions provide important data about our inner reality, just as the objects present to our senses provide important data about external reality. But this does not mean that the emotions themselves are forms of knowledge. The fact that I am angry at what I see as a friend's hostility to me is an important fact for me to know about myself. But the anger *per se* does not prove that the friend actually was hostile.

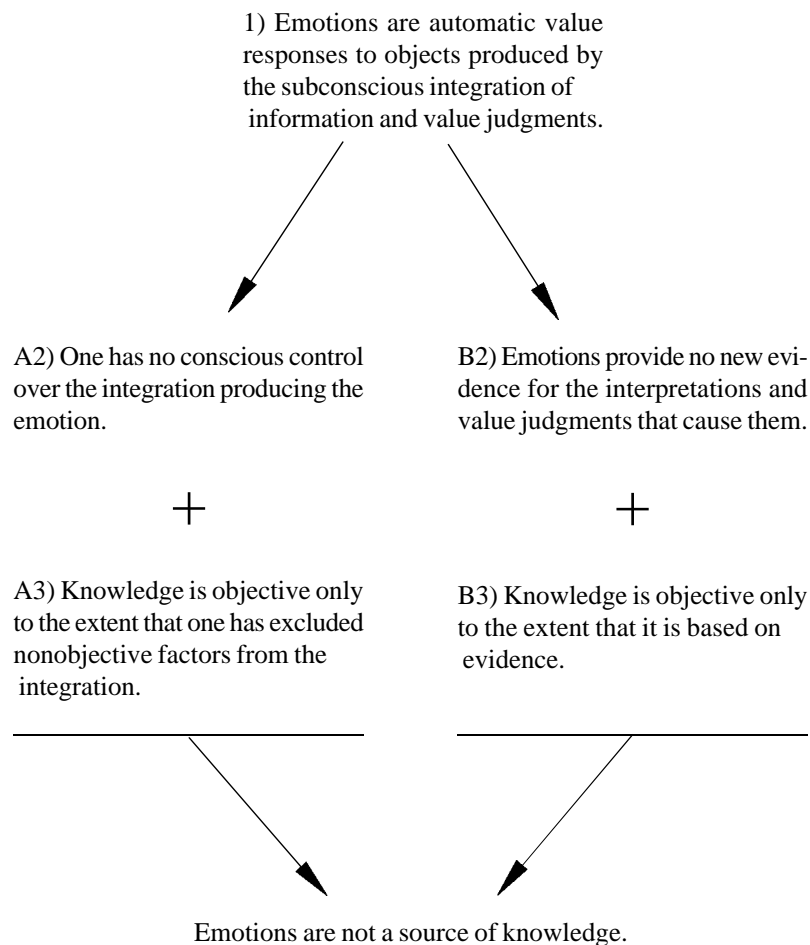
To establish the relationship between reason and emotion, we need to rely on an analysis of what emotions are, an analysis that is supported inductively by the introspective evidence available to all of us as well as by the more systematic studies of psychologists. An emotion is a value-response, a feeling that something is good or bad (i.e. a benefit or a threat). It is based on the way we interpret a person, object, or event in light of our background knowledge and value premises. The interpretation is performed by our minds subconsciously and automatically and the result is experienced as a feeling.

We can summarize these points in the definition offered as **Premise 1** of Diagram 1.6: **Emotions are automatic value responses to objects produced by the subconscious integration of information and value judgments.** One may be conscious of the value premise causing an emotion, as for instance when one feels a rush of fear after a close call on the highway, or one may not clearly understand the cause, as when one finds oneself feeling irritated with a close friend even though he has done nothing unusual. But the emotion itself is an automatic response. Even if the value premise involved is conscious, the interpretation and evaluation of the object occur by subconscious integration,

not by conscious deliberation and choice.

The emotional significance of the same event may differ depending on one's premises. Suppose you have just been passed over for a promotion at work in favor of Jane, despite the fact that you have superior qualifications. Jane isn't very competent or bright, but she does golf with the boss. If your subconscious premise is the principle that people should be treated in accordance with merit, you will feel outrage at Jane's promotion. But if your premise is that people should be equal, and that those with more ability should be expected to shoulder a heavier burden, you may be resigned to Jane's advance, or

Diagram 1.6: Emotions and Reason



even feel satisfaction at it. If you, too, have been trying to cultivate a taste for golf in the hopes it will propel you up the corporate ladder, you may envy Jane, or feel admiration for her skill at currying favor.

Because emotions are automatic responses to objects, they have the same immediacy and authority that sense perception has, the same feeling of self-evidence. Sometimes an emotion is powerful enough to evoke memories, images or ideas that we can take for well-founded premises. Probably everyone has had the experience of making an argument that “rings true” in the heat of passion, only to realize later, when one reconsiders it calmly, how ill-founded and weak it is. Why isn’t the feeling of authority one gets from an emotion a substitute for—or at least an equal companion to—reasoned thought? The answer, implicit in the nature of emotions, is spelled out in diagram 1.6.

There are two chains of inference that lead to the conclusion that emotions cannot be tools of cognition, and they are depicted in the diagram as (A) and (B), respectively. Both depend on the need for knowledge to be objective, though each appeals to a different aspect of that need. Chain (A) follows from the fact that one cannot control one’s emotions directly. Chain (B) follows from the fact that emotions do not, in themselves, provide new and objective information.

Let’s look at Chain (A) first. Premise A2 states that **one has no conscious control over the integration that produces an emotion**. This is because the integration is subconscious and automatic. Because it is not subject to direct voluntary control, one cannot deliberately exclude non-objective factors. One does not decide whether to feel an emotion, or what emotion to feel, in any immediate fashion. At best, one can attempt to ignore an emotion, or focus on matters others than those producing the emotion, as when one “thinks happy thoughts” to reduce a feeling of grief or distress. But the latter is a matter of altering what one attends to, not altering the integration behind the emotion.¹⁷

In this respect, emotions cannot meet the standard of objectivity we established in Diagram 1.5, specifically the point that **knowledge is objective only to the extent that one has excluded non-objective factors from the integration (Premise A3)**. Because one has no immediate control over one’s subconscious integrations, one cannot easily know whether one’s emotion reflects a non-objective bias of some kind, or not. In other words, when we combine premises A2 and A3, we can conclude by deduction that **emotions are not a source of knowledge**.

The second line of inference regarding emotions arises from that fact that **emotions provide no new evidence for one’s interpretations and value-judgments (Premise B2)**. Chain (B) combines this fact with a second aspect of objectivity, from the conclusion of Diagram 1.5, which is summarized in **Premise B3: reason is objective only to the extent that it is based on evidence**. Together these give us the same conclusion as Chain (A): emotions are not a source

of knowledge.

What is the basis for Premise B2? It follows from the way emotions integrate our knowledge and values. To the extent that an emotion is based on the products of past thinking, it obviously provides no new evidence for the truth of a conclusion. (Many of our subconscious value premises, moreover, were formed when we were children, too young to be consistent or reasonable in forming opinions.) To the extent that an emotion is based on current observation of reality, on the other hand, it may reflect new information. But there is still a difference between the information and the emotional reaction to it. For example, one might respond emotionally to some subtle aspect one has perceived in a person's tone of voice, but it is the perception rather than the emotion per se that provides that evidence about the person. Sometimes, an unexpected emotion may give you cause to re-evaluate a situation or check your premises, but that re-evaluation must still be done by reason on the basis of a rational identification of the evidence.

This analysis of emotion confirms the main conclusion of this chapter: that all knowledge is acquired by reason. If one wants to acquire knowledge, one must actively employ the methods of logic to ensure one's objectivity. This is a subject to which we will return once we have established the central place of reason in the structure of our values. At this stage, it would be premature to describe reason and objectivity as values, before we explain the nature of values more generally. What we can say now, not as a value judgment or normative statement but as a matter of fact, is that reason is the only process that will in fact produce knowledge of reality. This key principle of Objectivism may appear to be the merest common sense, but it has profound implications. In the chapters ahead, as we examine the evidence of the vital importance of knowledge to our values and our lives, we will return to this conclusion to identify man's essential characteristic and his means of survival.

Conclusion

We have now completed our survey of the basic logical structure of the Objectivist Epistemology, and established the meaning of reason, in the sense we intend to employ it. Reason is a theme that runs throughout Objectivism. Ayn Rand often characterized her philosophy simply as a "philosophy of reason," or "a rational philosophy." It is the philosophy that follows from employing the epistemic standards of reason, and that holds reason as the central value. All the virtues of the Objectivist Ethics concern some aspect of living as a rational being. If the ethics had to be reduced to a single principle, it would be: "*Live by reason.*"

Before we can proceed to *evaluate* reason, we must first attend to the context of that claim, to its hierarchical basis. We must establish the nature of

values. This is the subject of the foundations of ethics, to which we now turn.

- 1 Ayn Rand, *Atlas Shrugged* (New York: Random House, 1957) 1018
- 2 Just to be clear, philosophy says that outer space is some aspect of existents. This does not mean it is an entity, or is composed of entities such as “ether” particles. What it is composed of is a scientific question: current physics indicates that space may be a product of or relation among the entities, such as atoms and items of larger mass, of which the universe is composed.
- 3 The association of the idea of a “nature” with an entity is sometimes connected to the Aristotelian metaphysical distinction between substance and form. In the Objectivist usage, a thing’s nature is nothing more than its identity. No special metaphysical import is attached to the term.
- 4 Rand, “Philosophical Detection,” in *Philosophy Who Need It* p 17 Paperback p 15.
- 5 Ayn Rand, *Introduction to Objectivist Epistemology, Expanded 2nd Edition*, eds. Harry Binswanger and Leonard Peikoff (New York: Meridien, 1979) Paperback p 29
- 6 See David Kelley, *The Evidence of the Senses* (Baton Rouge, LA: Louisiana State University Press, 1986), chap 1, for a fuller discussion of the primacy of existence.
- 7 Rand, *Atlas Shrugged* 1037.
- 8 The Objectivist conception of categories refines the Aristotelian conception. Given the Objectivist theory of concepts, the distinction that Aristotle makes between qualities and quantities seems inessential. Other Aristotelian categories, such as place and time, reduce to relations. This list of four categories is consistent with the usage of Ayn Rand in her writings.
- 9 That we think free will confined to human beings is a point with various technical aspects. Whether or not other animals of complex consciousness, such as dogs or monkeys, exercise some amount of control over their attention, it is debatable whether they do so self-consciously to any significant extent. Since the only direct evidence we have of free will is our own, and the only testimony of it from other conceptual beings, namely other people, it is only for these cases that the evidence is decided.
- 10 The classic modern “clockwork universe” view is that of LaPlace, who supposed that if one knew all the conditions in the universe at a given moment in time, one could then in principle predict the rest of history to come.
- 11 We are speaking here of conceptual knowledge as opposed to perceptual awareness. In the remainder of this book, we will restrict the term “knowl-

edge” to the conceptual level.

12 Rand, *Introduction to Objectivist Epistemology, Expanded 2nd Ed.* David Kelley presents Rand’s theory of abstraction in a more scholarly context in his “A Theory of Abstraction,” *Cognition and Brain Theory* 1984 7(3&4), 329-357.

13 See David Kelley, *The Evidence of the Senses* (Baton Rouge: LSU Press, 1986) for a detailed Objectivist account of perception.

14 *Ibid.* Chapter 3

15 Rand, *Atlas Shrugged 1015.*

16 See Kelley, *Evidence of the Senses*, 234-38

17 One can, of course, change one’s emotional response to an object. But this depends on changing the subconsciously integrated evaluation that generates the emotion. For an evaluative premise that one has accepted only abstractly, it may be relatively easy to change one’s response. For instance, having heard that a certain person is a murderer, one might view him with a revulsion that would be almost instantly dispersed if one were to decide that he was not a murderer at all, but an upstanding individual. On the other hand, most emotions arise from premises that are deeply ingrained in one’s subconscious, and thus not easy to change. In either case, one usually has no clear idea what causes the emotion, but rather one finds out by seeing what changes it. See e.g. Alan Blumenthal, “The Base of Objectivist Psychotherapy, Part II” *The Objectivist* 8,7 (New York: The Objectivist inc., 1969) reprinted in *The Objectivist* (Palo Alto: Palo Alto Book Service, 1982) 676-681. Other literature on changing emotions. Ellis? * . .

