***The Intellect and the Senses Chapter 2:***

1

**ONCE AGAIN, let us begin with what all of us readily understand. We ordinarily speak of any living organism that has some consciousness of its environment and of itself as having a mind. We also attribute intelligence to that organism if, in addition to such consciousness, it reacts in some discriminating fashion to the environment of which it is aware.**

**It should be added, perhaps, that we generally regard mind and intelligence as the means by which sentient organisms learn from experience and modify their behavior accordingly.**

**By these criteria, the only animals to which we would not attribute mind or intelligence are those the behavior of which is completely determined by innate, preformed patterns of behavior that we call instincts.**

**The instinctive patterns of behavior of such insects as bees, ants, and termites are adequate for all the purposes of life and the survival of the species. Hence they do not need to learn from experience or modify their behavior in consequence of such learning. We are, therefore, justified in saying that they have no minds, no intelligence.**

**Among the vertebrates, and especially among the higher mammals, some behavior is instinctive in character, but not all. In fact, as we move up in the scale of animal life, the amount of behavior that is modified by learning increases in relation to the amount that remains purely instinctive and unmodified by experience.**

**By this criterion, we think we are warranted in saying that higher animals have minds and intelligence to a higher degree than lower animals. Of course, being sentient organisms, all have sense-organs; and it is through the functioning of their several senses that they learn from experience.**

**If we turn now from all infra-human organisms to man, a radical difference appears. In the strict sense of the term *instinct,* the human species has no instincts—no innate, preformed patterns of behavior. We have a small number of innate reflexes, only some of which are congenital. We also have what might be called instinctual drives or impulses. But in carrying these impulses out, members of the human species behave in a wide variety of ways. They do not all manifest a single pattern of behavior, such as we find in all members of a particular species of bee, ant, or termite.**

**In spite of this radical difference between the human and other animal species, it still remains appropriate to use such words as “mind” and “intelligence” in the same sense when we apply them to humans and other animals. For us as well as for them, mind or intelligence stands for faculties or powers employed in learning from experience and in modifying behavior in consequence of such learning. Because we differ from other animals through being totally bereft of instincts, we need mind or intelligence to a higher degree. All of our adjustments to environment must be learned.**

**Much of the learning accomplished by the human mind or intelligence is based upon sense-experience. We have sense organs that are generically the same as the sense-organs possessed by other species. The extent of the experience that their functioning provides us sets limits to our learning.**

**2**

**With all these quite obvious points noted, we are now prepared for the question to which right and wrong answers have been given in the twenty-five centuries of Western thought. The question concerns the human mind and its relation to the senses.**

**Is the human mind a single cognitive power, however complex, one that involves the functioning of our senses and whatever follows from their functioning, such as memory and imagination, *or* should the human mind be divided into two quite distinct cognitive powers—sense and everything to which sense gives rise, on the one hand, and intellect, able to understand, judge, and reason, on the other hand?**

**The question presents us with irreconcilable alternatives. One of these alternatives identifies the human mind with sense, including the whole range of consequences that follow from our having sensations or sense-perceptions. The other alternative divides the human mind into two distinct parts—sense and intellect— and regards these two parts as performing quite different cognitive functions.**

**The first alternative constitutes the answer advanced in modern times, beginning with Thomas Hobbes and carried forward by his successors in British philosophy—by John Locke, George Berkeley, and David Hume, and by many others who came after them. It is, as I will try to show, the wrong answer—a mistake that has serious consequences.**

**The second alternative constitutes the answer that prevailed in antiquity and during the Middle Ages. It persisted in modern times, notably in the philosophy of Rene Descartes, Immanuel Kant, Georg Friedrich Hegel, and their followers. It is, in my judgment, the right answer, correcting the mistake and avoiding the consequences to which that mistake leads.**

**Among those who give the right answer, some go too far and their extremism needs correction. Before we come to that, let us consider the points that distinguish the right answer from the wrong one.**

**The first point, stressed again and again in the writings of Plato and Aristotle, is that the objects we apprehend divide into those that are sensible and those that are intelligible.**

**All of the objects we apprehend by sense-perception belong, of course, to the first group. That group also includes the sensible particulars we can remember and imagine—such as our memory of the dinner table at which we sat last evening, or our imagination of the house we are planning to build.**

**To the second group belong all purely intelligible objects, such as the objects of mathematical thought, or such metaphysical objects as purely spiritual beings; for example, souls, angels, and God. It also includes such objects of thought as liberty, justice, virtue, knowledge, the infinite, and even mind itself. None of these can ever be perceived by the senses. None is a sensible particular.**

**A second point follows immediately from the first. Since the objects we apprehend fall into these two distinct groups, we must have distinct powers of apprehending them—sense, on the one hand, and intellect, on the other.**

**It may be useful to repeat a third point, already mentioned. Sense includes a variety of powers, such as the power of perceiving, of remembering, and of imagining. Intellect also includes a variety of powers, such as the power of understanding, of judging, and of reasoning. We sometimes lump together all the results of exercising our sensitive powers under the head of *sense-experience.* So, too, we lump together all the operations of our intellectual powers under the head of *thought.***

**Beyond these three points, shared by all those who give this answer to the question, certain divergencies must be noted. Plato and Descartes, and also later Kant and Hegel, go too far in their separation of the two realms—the sensible and the intelligible. This results from their attributing to the intellect an autonomy that makes its functioning, in some or all respects, independent of sense-experience.**

**This leads Plato and Descartes to endow the intellect with innate ideas—ideas it in no way derives from sense-experience. Kant’s transcendental categories are another version of the same error. I have elsewhere, in a book entitled *The Angels and* *Us,* commented at length on this error, one that treats the human intellect as if it were an angel somehow encased in or associated with a human body.**

**The extremism just noted is avoided by acknowledging first that the intellect depends for all its primary apprehensions upon sense-experience; and second, that, while some objects of thought are purely intelligible, our sense-experience provides us with objects that, with rare exceptions, are never purely sensible.**

**This second point needs a further word of explanation. The objects of our sense-experience are, for the most part, objects we not only perceive but also understand. Only when, in rare exceptional instances, we apprehend something as a unique individual that we are unable to classify in any way, is that object unintelligible.**

**Normally, the sensible objects we perceive, we perceive as particulars of one kind or another—a particular dog or cat, a particular hat or coat, a particular tree or flower. The particularized individual is an intelligible as well as a sensible object. We not only perceive it as this one individual thing. We also understand it to be a particular thing of a certain sort.**

**Sense and intellect have cooperated in our apprehension of it. It could not be a particular if it were not, at the same time both a sensible and an intelligible object.**

**In contrast, such objects of thought as liberty, infinity, and God are purely intelligible objects. I will have more to say about their special character later.**

**Here I would like to add one further comment on the right answer to the question about the human mind and the senses. It enables us, retrospectively, to correct Locke’s omni-comprehensive use of the word “idea.”**

**In the preceding chapter, we focused entirely on Locke’s mistake in regarding ideas as always the objects of our understanding when we are conscious or are thinking about anything. We went along with his omni-comprehensive use of the word “idea” to cover sensations, perceptions, memories, images, feelings, and even what, in certain passages, he called abstract or general ideas. That all-purpose use of the word “idea” fitted in with his use of such other words as “mind” or “understanding” for a single cognitive faculty or power, essentially sensitive in character.**

**The opposite view that we have just been considering—the view that attributes two distinct cognitive powers or faculties to mankind, the sensitive and the intellectual—calls for changes in the use of all these words.**

**According to this view, our perceptions, memories, and images are *not* ideas. That word should be reserved exclusively for the concepts or conceptions by which we *either* apprehend purely intelligible objects of thought *or,* when our intellects cooperate with our sensitive powers, apprehend sensible particulars that are also intelligible.**

**Nor should “human understanding” be used, as Locke and Hume used it, for the human mind as a complex of sensitive powers. The English word “understanding” translates the Greek word *“nous”* and the Latin word *“intellectus.”* It is paradoxical, to say the least, that it should have been adopted by Locke and Hume in expounding a view of the human mind that denies the presence of intellect as quite distinct from the senses.**

**When, in accordance with the opposite view, the word “ideas” is used exclusively for concepts or conceptions that are the instruments whereby we understand whatever is intelligible, we should remember that, according to this view, ideas or concepts are not that which we understand, but only that by which we apprehend objects of thought, the objects we do understand.**

**In our everyday, loose speech, we frequently violate this critical caution. We speak or write about this idea or that as if it were the object under consideration. I am as guilty of such loose speech as everyone else. I have written books and given lectures about the great ideas. I have used the word “idea” in my titles as referring to an object of thought under consideration.**

**My only apology for this incorrect, loose usage of the word “idea” is that it would be both strange and cumbersome always to speak or write with the requisite precision. Instead of entitling a book *The Idea of Freedom,* I would have had to entitle it *Freedom as an Object of Thought.* Instead of lecturing or writing about the great ideas, I would have had to refer to the subjects of my discourse as great—basic or fundamental—objects of thought.**

**3**

**The mistaken view of mind, taken without qualification by Hobbes, Berkeley, and Hume, can be stated simply as follows: the mind, so far as it functions as a cognitive instrument, is entirely a sensitive faculty, without any trace of intellectuality about it.**

**All its “ideas” or “thoughts” (I have put these words within quotation marks to call attention to their misuse) are sensations, sense-perceptions, or images; and its images are either recalled sense-perceptions or they are constructed out of materials provided by sense-experience.**

**“Imagination,” Hobbes writes, “is nothing but *decaying sense;* and is found in men and many other living creatures, as wellsleeping as waking.” In a subsequent passage, he tells us that“the imagination that is raised in man ... by words, or othervoluntary signs, is what we generally call *understanding,* andis common to man and beast.”**

**Berkeley, similarly, divides all ideas into those of sense and those of imagination, distinguishing the former from the latter by their liveliness or vividness; and he, too, misuses the word “understanding” to name the cognitive power of the mind in sensing and imagining.**

**Likewise Hume, who in his *Enquiry Concerning Human Understanding* “divide[s] all the perceptions of the mind into twoclasses or species, which are distinguished by their differentdegrees of force or vivacity. The less forcible and lively arecommonly denominated *Thoughts* or *Ideas”;* the more vividHume calls “impressions,” by which he means “all our more lively perceptions, when we hear, or see, or feel.”**

**In all these statements, two errors are compounded: one is the error of regarding our perceptions and images, miscalled “ideas,” as the immediate objects of our consciousness; the other is the error of reducing the human mind to a purely sensitive faculty, able to be aware of nothing but what can be perceived through the senses or can be imagined as a result of our sense-perceptions.**

**I have omitted reference to Locke’s *Essay Concerning Human Understanding* because, while that book commits the same twoerrors, it also contains passages in which the author takes noticeof certain activities of the human mind that are intellectualrather than sensitive. A mind that was purely sensitive in charactercould not perform these activities. In spite of this, Lockedoes not explicitly acknowledge that the human mind consistsof two distinct sets of cognitive powers—those of sense, on theone hand, and those of the intellect, on the other hand.**

**All our “ideas,” Locke declares, are not derived from sense. Some are derived from the mind’s reflection about its own operations. It is aware of its own activities—its perceiving, its remembering, its imagining, and so on.**

**According to the opposing view of the human mind as constituted by intellect as well as by sense, it is only our intellectual power that is reflexive, not sense. The intellect has a self-awareness that the senses do not have. It is this fact that gives special significance to the distinction between ideas of sense and of reflection that Locke introduces, a distinction not to be found in Hobbes, Berkeley, and Hume.**

**The second qualification introduced by Locke is to be found in the passages in which he deals with what he calls “abstract or general ideas.” Only man has such ideas; “brutes abstract not,” he maintains.**

**Once again, it is the opposing view that gives special significance to this point in Locke; for, according to that view, abstraction is an activity of the intellect, not of sense. The human mind has abstract ideas (i.e., concepts) only because it is constituted not solely by sense, but by an intellect as well.**

**On this second point, the other three authors—Hobbes, Berkeley, and Hume—are most emphatically negative. They are more consistent than Locke in recognizing that, since the human mind is entirely a sensitive faculty, it cannot possibly have any abstract ideas.**

**Berkeley and Hume, who followed Locke and have read his *Essay,* explicitly attack him for his inconsistency on this point. He should have realized that nothing abstract or general can be found in the whole range of sense-perceptions and imaginations.**

**Their criticism of him is well founded in a certain respect. Since Locke does not acknowledge the presence of a human intellect as quite distinct from all man’s sensitive powers, his attempt to account for abstract, general ideas falters and fails. He affirms their existence, but he cannot explain them. He treats them as if they were like composite photographs, in**

**which particularizing details are blurred by the superimposition of images upon images. That, as we shall see, is far removed from the abstract character of an intellectual concept, produced by an act of understanding that is radically different from any act of sense or imagination.**

**We now come to the crux of the issue between these opposite views of the human mind—one denying intellect, the other affirming it. It turns on opposite answers to one question: *Do we or do we not have abstract ideas (i.e., concepts) as well as sense-perceptions and images?***

**Hobbes, Berkeley, and Hume flatly say that we do not. Locke fudges. He should have said we do not, but for a very good reason, which will appear presently, he could not bring himself to do so.**

**Of the three, Bishop Berkeley goes to the greatest length in his effort to expose what he regards as the utter nonsense of supposing that any idea can be abstract or general. A large part of the Introduction to his *Principles of Human Knowledge* is occupied with a refutation of this doctrine and with a critique of Locke for embracing it.**

**For brevity’s sake, we can take Hume’s summary of the argument, to which he appends a footnote expressing his indebtedness to Berkeley.**

**Let any man try to conceive a triangle in general, which is neither *Isosceles* nor *Scalenum,* nor has any particular length or proportion of sides; and he will soon perceive the absurdity of all the scholastic notions with regard to abstraction and general ideas.**

 **There we have it in a nutshell. If all we have are sense perceptions and images derived from sense, then we can never be aware of anything but a particular triangle, one that is either isosceles, scalene, or equilateral, one that has a certain size or area, one the lines of which are either black or of some other color, and so on.**

**What is here said about triangles can be said in the same way of everything else. We are never aware of anything except particular individuals—whether by perception or by imagination— this cow or that, this tree or that, this chair or that, each with its own individuating characteristics, which make it this one particular instance of a certain kind of thing.**

**We may have a name for that certain kind, as we do when we use such words as “triangle,” “cow,” “tree,” and “chair,” but we have no idea of that kind as such. We have no idea or understanding of triangularity as such, or of what any individual must be like to be a particular triangle, cow, tree, or chair. Only our words (words such as the above that we call “common nouns”) are general. Nothing in reality is general; everything there is particular. So, too, nothing in the mind is general; everything there is particular. Generality exists only in the words of our language, the words that are common, not proper, names.**

**Those who regard the human mind as having intellectual as well as sensitive powers have no difficulty whatsoever in meeting Hume’s challenge head-on. By means of an abstract concept, we understand what is common to all the particular cows, trees, and chairs that we can perceive or imagine.**

**4**

**What serious consequences flow from the mistaken view of mind that denies intellect and, with it, concepts or abstract, general ideas?**

**The immediate consequence is an inherently untenable doctrine called nominalism. This is as repugnant to reason and common sense as the *isms* (subjectivism, solipsism, and complete skepticism) that, in the preceding chapter, we noted as consequences of the mistake about the objects of consciousness. A more remote consequence is one that affects our understanding of man’s place in nature.**

**Before coming to that, I will try to explain why nominalism is inherently untenable. Showing that to be the case is tantamount to showing that the view of mind which inevitably leads to nominalism is also inherently untenable.**

**Locke’s respect for reason and common sense prevented him from being a nominalist, even though his failure to acknowledge man’s possession of a distinct intellectual power also prevented him from giving an adequate account of abstract, general ideas.**

**In Locke’s view, the names we use derive their significance from the ideas in our minds to which they refer. Since our language includes names that have general significance, such as “triangle,” “cow,” “tree,” and so on, we must have general ideas. Otherwise these names could have no significance, for there would be nothing to which they could refer.**

**Correcting Locke’s erroneous view of ideas as the objects of which we are directly conscious, we can restate his argument in the following manner. Unless, by means of our abstract concepts, we can understand triangularity as such or what is common to particular cows, trees, and chairs, the general or common names we use can have no significance, for they do not refer to this particular triangle or to that particular cow, but to triangles in general and cows in general.**

**How do nominalists who deny that anything general exists either in reality or in the human mind meet this argument and explain the significance of general names, the use of which they do concede?**

**They say that a common noun, such as “dog,” is a general name, or a name that is general in its reference, because we apply it to anyone of a number of particulars indifferently, i.e., without discriminating between this particular and that one in any way that would make the word “dog” inapplicable to both of them.**

**The general significance of the word “dog” is such, they hold, that I can use it today when I see a poodle coming down the lane and tomorrow when I see an Airedale coming down the lane, on both occasions being equally able to say “I see a dog coming down the lane.” If, on both occasions, another person is present who hears my statement but is not looking in the same direction, he will understand that I am referring to a particular dog, but he will not know without looking whether I am referring to the same dog as yesterday or to a different dog. Either is possible.**

**The explanation offered, upon examination, reduces to the statement that a common or general name is one that can be applied to two or more individuals which are the same in a certain respect, or which have some characteristic or characteristics in common. To affirm this statement is, of course, tantamount to acknowledging that the two or more perceived objects to which a common name can be applied are particulars, each a unique or singular particular, but each a particular of a certain kind, to which the common or general name applies.**

**If all these particulars did not have something in common, or were not the same in certain respects, then one and the same common or general name could not be correctly applied to all of them *indifferently,* as those who take this view insist.**

**If, at this point, they were to deny that two or more things can be the same in any respect, or have anything in common, then the only explanation they have to offer would be undercut, and they would leave us with no explanation at all. Let us suppose, therefore, that they do not go to the extreme of denying that two things can have anything in common or be the same in any respect. We are, therefore, obliged to ask them whether we are able to apprehend what is common to two or more entities, or apprehend the respects in which they are the same.**

**If their answer to this question is negative, they have again completely undercut their own explanation of the meaning of common names as applicable to two or more items *indifferently* (i.e., with respect to some point in which they are *not different).* If we cannot apprehend any respect in which two or moreitems are the same, we cannot apply one and the same name tothem indifferently.**

**The only alternative left open to them is an affirmative answer to the question: Are we able to apprehend what is common to two or more entities, or apprehend respects in which they are the same?**

**If they give that affirmative answer, because they must either give it or admit that they have no explanation to offer, then the giving of that answer is tantamount to a refutation of their original position.**

**To affirm that what is common to two or more things, or that what is the same about them, can be apprehended, is to posit an object of apprehension which is quite distinct from the object apprehended when we perceive this or that singular particular as such. But this is precisely the position which opponents of nominalism regard as the correct solution of the problem; namely, that there are objects of apprehension other than perceived particulars. Yet it is precisely this which is initially denied by those who deny intellect and, with it, all abstract concepts or general ideas.**

**5**

**Rejecting nominalism as a self-defeating doctrine, one need not go to the opposite extreme, the extreme to which Plato went.**

**Attributing to man an intellect independent of the senses, Plato also conferred an independent reality on its intelligible objects— the universal archetypes. In his view, it was these universal and eternal archetypes—of triangle and cow and everything else—that truly have being, and more reality than the ever-changing particulars of the sensible world.**

**It is not necessary to go to that extreme to correct the mistaken view of the human mind that regards it as a wholly sensitive faculty and that, denying intellect, is compelled to adopt an untenable nominalism. To say that the objects of conceptual thought are always universals is not to assert that these universals exist *as such* in reality, independent of the human mind that apprehends them.**

**Suffice it to say that the intelligible universals of conceptual thought are public in the same way that the sensible particulars of perception, memory, and imagination are public. Just as two or more persons can talk to one another about a perceptual object or a remembered event that is commonly apprehended by them, so two or more persons can talk about liberty or justice as common objects of thought, or about triangularity and circularity, or about the difference between tree and shrub as distinct kinds of vegetation.**

**They can do so without any reference to the sensible particulars that may provide examples or instances of the universals they are discussing. It may be useful for them to refer to such particulars, when they are available, to make sure that they have the same object of thought before their minds; but there are other ways of identifying an object of thought to achieve such assurance.**

**A question still remains. Granted that the universals we apprehend as intelligible objects can be objects for two or more minds to consider and discuss, what about the reality of these universals?**

**In the case of perceptual objects, that question, as we have already observed, does not arise. What is perceived is a really existing individual thing; if it did not really exist, it could not be perceived. We would then be suffering counterfeits of perception; we would be hallucinating or dreaming.**

**In the case of the objects of memory or imagination, we can ask whether the remembered object once existed in the past and, perhaps, whether it still exists; we can ask whether the imagined object may come into existence in the future. There are various ways of ascertaining the answers to such questions.**

**While the universal objects of thought never really exist *as such* (i.e., exist in reality independent of our minds), somemeasure of reality can be claimed for them.**

**We may be able to point to particular perceptual instances of them that really exist. We may remember particular instances of them that once existed in reality. We may even imagine particular instances of them that can have real existence in the future.**

**Whenever an intelligible universal can be instantiated (i.e., whenever we can point to perceived, remembered, or imagined particular instances of a conceptual object), we go beyond the object of thought to actual or possible real existences.**

**We need not do so. We can be content to deal with the object of thought *as such,* and go no further. Disregarding all actual or possible particular instances of the universal object we are thinking about, we may concentrate upon it for its own sake.**

**There is still one other way in which the universal objects of conceptual thought have a measure of reality. For a number of individuals to be particular instances of a certain universal, they must really have something in common. One example should help to make this point and its significance clear.**

**Let us take the universal object to which the common noun “swan” refers. This word names a kind that has instances in reality; it names a class of perceptible things that has really existing members. To say that each of these instances is a particular swan is also to say that each participates in whatever is common to all swans.**

**Were there nothing common to all swans—nothing the same about them—the instances in question could not be apprehended as particular swans. To apprehend something as a particular instance of a certain kind involves an apprehension of the kind itself. That in turn depends upon the apprehension of what is common to or the same about the several instances being considered.**

**Hence, when in the case of the kind named by the word “swan” particular instances really exist, it is also true that the sameness that unites these really existing instances as particular swans is something that really exists in them. To deny such reality to a universal that has particular instances is as self-defeating as the nominalism which denies that we can apprehend universals, and then attributes generality only to words without being able to explain how words can have general significance if we are unable to apprehend any universal objects.**

**One further complication must be noted. Not all the universals that are the intelligible objects of conceptual thought are capable of instantiation by perceived, remembered, or imagined particulars. Instantiation (i.e., exemplification by particular instances) is possible only for those concepts that the intellect forms by abstraction from sense-experience.**

**Not all the concepts that the intellect is able to form are abstractions from sense-experience, as our concepts of cow, tree, and chair are. Some are intellectual constructions out of the conceptual materials that consist of concepts abstracted from sense.**

**In this respect, the intellect functions in a manner parallel to the imagination. Some of our images are memories of sense perceptions, but some are constructs of the imagination— images constructed out of the materials of sense-experience; for example, the constructed image of a mermaid or a centaur.**

**We call these fictions of the imagination. So, too, conceptual constructs might be called fictions of the intellect, with this one very important difference. We acknowledge at once that the fictions of our imagination are objects that have no actual existence in reality. But many of the conceptual constructs that we employ in scientific and in philosophical thought concern objects such as black holes and quarks in physics, and God, spirits, and souls in metaphysics. These are objects about which it is of fundamental importance to ask about their existence in reality.**

**Since these conceptual constructs can have no perceptual instances, the attempt to answer this question must be indirect and inferential. The real existence of instances of such objects can be posited only on the grounds that, if they did not exist, then observed phenomena could not be adequately explained.**

**6**

**Charles Darwin’s *Descent of Man,* published in 1871, more than a decade after his *Origin of Species,* rejected the traditional view of the status of the human species, a view that had been regnant in Western thought from antiquity down to the seventeenth century and, in some quarters, later than that.**

**According to the traditional view, man as a rational animal differs radically in kind from all other animals by virtue of the fact that man and man alone has an intellect in addition to senses that humans share with other animals. Darwin marshaled evidence that attempted to show the opposite; namely, that man differed only in degree from other animals.**

**Hobbes and Hume anticipated Darwin by centuries, though this has often gone unnoticed. The most serious consequence of their mistaken view of the human mind as constituted by sense and imagination and devoid of intellect is the conclusion that men differ from other animals only in degree, not in kind.**

**They did not hesitate to draw that conclusion. For if the various powers that give us sense-experience and enable us to learn from it are common to the human and other animal species, then the only differences between humans and other animals must be differences in degree.**

**Since Darwin’s day, experimentation with animals in psychological laboratories has turned up much additional evidence that has been regarded as reinforcing this conclusion. It has been interpreted as showing that other animals have concepts as well as percepts, even if they do not have intellects in the traditional sense of that term. Accompanying this attribution of conceptual intelligence to other animals has been the attribution to them of linguistic performances that are said to differ only in degree from the human use of language.**

**If these interpretations and attributions were correct, much of what has been said in the preceding pages would have to be withdrawn. but they are not correct. Reserving my criticism of the fallacious claims about the linguistic performances of other animals for the next chapter, I will concentrate here on the misinterpretation of the evidence that is supposed to show that other animals have concepts that enable them to deal with generalities as well as with particulars.**

**To put the matter briefly, the experimental evidence does show that other animals, under laboratory conditions, can learn to discriminate between different kinds of perceived objects. They learn to react in one way to squares and in another way to circles, for example; or to eat what is placed on a green surface and to avoid what is placed on a red surface. Such discriminations indicate that they are able to generalize, and this is made the basis for attributing concepts as well as percepts to them.**

**The error here consists in thinking that to be able to discriminate between different kinds of objects is tantamount to being able to understand distinct kinds and their differences. To regard an animal’s ability to discriminate between perceived similarities and dissimilarities as evidence of conceptual thought on the animal’s part involves an equivocal use of the word “concept.”**

**Strictly used, concepts are (a) acquired dispositions to recognize perceived objects as being of this kind or of that kind, and at the same time (b) to understand what this kind or that kind of object is like, and consequently (c) to perceive a number of perceived particulars as being the same in kind and to discriminate between them and other sensible particulars that are different in kind.**

**In addition, concepts are acquired dispositions to understand what certain kinds of objects are like both (a) when the objects, though perceptible, are not actually perceived, and (b) also when they are not perceptible at all, as is the case with all the conceptual constructs we employ in physics, mathematics, and metaphysics.**

**There is no empirical evidence whatsoever that concepts, thus precisely defined, are present in animal behavior. Their intelligence is entirely sensory. Its operations are limited to the world of perceptual objects and imaginable ones. What lies beyond perception and imagination is totally beyond the powers of the animal mind or intelligence. Only animals with intellects, only members of the human species, have the conceptual powers that enable them to deal with the unperceived, the imperceptible, and the unimaginable.**

**It is necessary to correct the mistaken view of the human mind first advanced by Hobbes, Berkeley, and Hume in order to defend the proposition that man differs radically in kind from all other animals.**

**The difference is one of kind rather than one of degree because only the human mind includes intellectual as well as sensitive powers. The difference in kind is radical because man’s intellectual powers are not related to the action of the brain and nervous system in the same way that man’s sensory powers are.**

**The full explanation of what has just been said is too elaborate for exposition here. I have dealt with it at length in two earlier books, *The Difference of Man and the Difference It Makes,* published in 1967, and *The Angels and Us,* published in 1982. However, one crucial point can be stated briefly here.**

**The relation of the sensory powers to the brain and nervous system is such that the degree to which an animal species possesses these powers depends on the size and complexity of its brain and nervous system. This is not the case with regard to the intellectual powers. That the human mind has such powers does not depend on the size or complexity of the human brain. The action of the brain is only a necessary, but not the sufficient, condition for the functioning of the human mind and for the operations of conceptual thought. We do not think with our brains, even though we cannot think without them.**

**Mortimer J. Adler, *Ten Philosophical Mistakes*, Chapter 2**