#### WHERE PHILOSOPHERS DISAGREE

# A Lecture Given at Thomas Aquinas College

#### By Mr. Marcus Berquist

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Usually, it falls to my lot to introduce the speaker of the evening, except when some other member of the faculty or the college community knows the speaker better than I do. Nobody here knows me better than I do, except my wife, and she can't be here tonight. It's true of the members of the faculty that before long most of you will know most of us only too well. So it seems better to proceed at once to business without introduction.

And yet I can't come directly to business--something is usually said at the opening lecture about the lecture series itself. I won't say very much this evening about that. I'll try to say just a few basic things, and then pass on to the particular theme of my lecture.

The first thing to notice about the lecture series is what is already known to you, that is to say that it's required. It's considered part of the curriculum. The lectures here are not just something added, or something that enhances life here. It's not like the Christmas party which is a tradition going back to the very first year of the College, i.e. something which belongs to the College as a tradition of the College, but is not part of the curriculum. We regard the lecture series as part of the curriculum, and perhaps it's not altogether easy to see why that's so. I'd like to indicate a couple of reasons, starting with the basic reason.

One always has to keep in mind that those of us who founded the College never thought that the education you got here would be anything other than a beginning. If you think that you will come out of these doors, even if you are a good student and study hard and are very smart, as more than a beginner--somebody who has made a good beginning, and has a good sense of how to go further--you will be deceiving yourselves. We know that this education is very incomplete. A lot of things are not discussed, a lot of things are not even touched upon (although we try to touch upon the general category in which such things are found). So it would be a mistake, of a very fundamental sort, to think that the education you receive here is a complete one.

Well, one way we have of reminding you or of making you aware of that fact, is the lecture series. We invite people to come here, and also members of the faculty, to speak about something in greater detail, or about something that does not come up directly in the curriculum itself, but which is connected with the curriculum and develops something in it more fully and exactly, or which shows you that there is more to be investigated in the matters which you have begun to study. Things of that sort tend to make you aware of the fact and give you some specific sense of the fact that your education here is only a beginning. Often times you will find, if you have a good lecture, that the lecturer will start with things you are already familiar with, and then lead you from those things to matters of greater detail, of greater depth, and you will see that the things you have started to study here will bear fruit. They are not just things in themselves, but you will learn more things if you put your mind to them; you will see certain things that are hidden, implicit in the things you have learned. A good lecturer will often bring those things out. He will put your attention to certain details, he will deepen your understanding of things that you have already started. One could put it briefly by saying "This education isn't the whole thing. At best, it's the beginning of the whole thing". A good lecturer should make you aware of that fact.

Also, we have a certain number of what could only be described as bad lectures. I think it was George Orwell who made a distinction between what he called "good bad books" and "bad bad books". By the "good bad books" he meant the bad books that you should read. The books the reading of which, even if you see they're wrong or feel they're wrong without seeing why they're wrong, are good for you. You need a certain measure of opposition, disagreement, or as the moderns like to say, "challenge", to understand rightly and fully the things that you may have taken from your education here.

I think one of the most successful lectures in terms of helping the students grow in understanding we ever had at this college, was one of the lectures which I thought objectively considered was the worst. Maybe that'll be true tonight, too, I don't know. But this lecturer challenged the students without intending to--the lecturer didn't come with a view to offending anybody, but with a view to speaking his own views. What struck me about his lecture was that it was just enough opposed to what our students were inclined to think to make them exercise their minds and try to grasp more fully and deeply what they held, and perhaps even modify it at certain points where it was necessary. To anticipate a point I'll make later about Aristotle: we ought to be grateful to those who have engaged in philosophy before us, and not just those who have done well and have instructed us by their knowledge, but also those who have done badly. They, in their own way, have shown us the way, by showing us the questions and the issues that must be confronted if we are to really deepen our understanding of the things that we are learning. And so we come back to the first point I made, that the education here doesn't pretend to be anything more than a beginning. So listening to lectures, even if they're not that good, helps you to realize that and to develop the beginnings you make here into something deeper.

Now, the first lecture of the year is by tradition offered by one of the senior members of the faculty, and deals with a theme that relates to liberal education generally. I've had certain misgivings about that, because although it's obviously true that I'm an older member of the faculty, and that that qualification gets better every year, the second part is not so clear; how the topic that I've chosen for discussion tonight is a topic that bears upon liberal education generally. The name of my talk is "Where Philosophers Disagree". Just put that way, it's not clear exactly what bearing that has upon education in particular. I hope I can make that a little clearer in the course of the lecture. I'll talk about it more specifically in a moment, and I hope that as the lecture develops, the relevance of what I say about philosophical disagreement to education, a very particular relevance, will become more clear.

I would like to say something about the manner in which I give the lecture. The first lecture I ever gave before an audience of any size was given twenty years ago at St. John's College in Annapolis. I'd given a few presentations before that before smaller groups, and I wasn't that unconfident, but a friend of mine who had lectured at St. John's, told me: "You'd better be prepared." He said "Don't try to speak out of memory. Write out your lecture line by line, so that you're saying just exactly what you want to say. Because when you get there, you're not in a lecture hall, you're in an amphitheater. Well, when I got there, I found that what he said was to a certain extent right. It was not like this, where I'm actually above you all. There, you confront a certain number of individuals who are at the same level, but then the seats rise, so that most of them are looking down at you. You walk into the auditorium and you find that you are subject to the scrutiny of 350 hostile, indifferent, skeptical eyes, that are all converging on you from positions which are mostly above you. So you do the best you can, sort of shuttle across the stage, and then you stand there and start to read your lecture. Well I got about ten minutes into the lecture and I realized I didn't understand a word I was saying. Further more I didn't know what was happening "out there". I was looking at my page, and I had only a blurry sense that somebody was still there, but I didn't know whether they were with me, or against me, whether they were awake or asleep. So I stopped trying to simply read my lecture, and started looking at the paragraphs as they came up on the page, and remembering the theme of the paragraph I would speak it directly to them. And that worked an awful lot better--not as well as it would have had I anticipated the problem beforehand, but at least better than it was going up to that point. At least I had a sense I was talking to living,

human beings, and some sense of where they were as I spoke, and most importantly for me, I was thinking what I was saying when I said it. Since then I have found that that method of giving lectures is the only one that works for me. So if you find a certain lack of polish, maybe even occasional repetitiveness, perhaps incoherence here and there (I hope not), understand that this is the best I can do, all things considered. I find it very difficult to simply read a text to a bunch of faces which are in the background just a blur. (When you're my age, the faces in the background are a blur.) You have a hard enough time seeing the text before you, but turning from the text to those faces is too much. So I'll do my best.

The subject of my lecture, the title at any rate, is "Where Philosophers Disagree". Now about this lecture I had two misgivings. One is I felt, after I'd thought about all that was in my mind, that I had nothing original to say, that what I would say had been heard or thought about by others here, particularly my colleagues on the faculty, and there was no new light I had to bring on the subject. But then I thought to myself--first of all I thought it was too late to change, but then I thought, trying to rationalize it all--there is one advantage in being older, is that nobody expects you to say anything original, and they're not disappointed if you don't. And the second thing I thought, also coming out of my experience, is that there is a certain advantage in repetition. Learning is not entirely a matter of new insights. It's also, and very largely a matter of being reminded of things; things you know already but you tend not to think about when you ought to think about them, or sometimes not to think about them at all. As people say, things retreat into your passive memory, and never become a part of your active memory.

I think an example of that is found in the dialogue that all of you have read, the Meno. In the Meno, Socrates presents an example to show that learning is recollection. He teaches or seems to teach the slaveboy something only by asking him questions. You say to yourself "That's an argument that learning is recollection". But there is another argument in that dialogue that's not as explicit, that learning is recollection, and I think it's a more interesting argument. It proceeds from the negative: being unable to learn is very largely a matter of not being able to remember. You may remember as the dialogue progresses that Meno manifests an inability to retain anything that he's been told or taught or anything he has himself admitted to. After Socrates proves to him that he doesn't know what virtue is, that it's worthwhile investigating what you don't know (by the example of the slaveboy), and that you cannot know whether virtue is teachable until you know what it is, after Meno admits all that, then Socrates says "All right, now let's inquire what virtue is." Meno says "I'd rather go back to our first question." What is that? Well, it's a kind of philosophical forgetfulness. All the ground that he and socrates have gained together, is lost at that point--at least for Meno it's lost, maybe not for us, the readers. Meno forces Socrates to go back to the original thing, because he cannot retain what has come out of the argument up to that point.

I could give examples from personal experience that are along the same lines. Others could give examples like that about me (but I can't remember those), and I could give examples like that about them. I could even name names, but I won't. I have found that persistent disagreements that go on for weeks and weeks and months and months and years and years, never seem to get anywhere. And why don't they? Well, it's all their fault. They don't seem to keep any point that was made previously. So every time you come back to the same theme again, it's like you've never said a darned thing. You're starting at point zero once again. Why? Because they don't remember.

I think that is something worth considering. So if I say nothing original, I will at least have the virtue of reminding you of things which, perhaps, ought to be considered. It's not unlike sermons and homilies. You don't always expect something new from the priest, some new insight, some deepening of your understanding. It's enough that he remind you from time to time of things that you ought to think about. Some people say the rosary is boring, because they're thinking about the same old thing in the same old way, day after day. Maybe it's a good

thing to think about the Annunciation every three days, even if you don't understand it more deeply than you did the last time. Maybe you do, as a matter of fact, but even if you don't, it's probably worthwhile thinking about that great mystery. Just bringing it to your mind, and remembering that that's what you're living by, that that's what gives meaning to your life, those mysteries, that's a service in itself. So this is a way of explaining the triteness and the lack of originality in what I'm about to say. You spend half your lecture defending the fact that you're giving that lecture!

When I first thought about this lecture I thought "Of course, it's a suitable opening lecture." But then I had second thoughts. Does this really fit the theme of the lecture series, where the first lecture is supposed to be a very general discussion of liberal education? I remember some years ago I gave a talk on the importance of the inferior disciplines: don't underestimate the importance of logic, of grammar, of geometry, and of arithmetic. They're not the highest things we study, but they're fundamental. That clearly has a bearing on liberal education in its wholeness. But it's not so clear in the theme I've chosen tonight. It thought it was at first, but then I had second thoughts. So let me explain why I'm talking about this.

I think liberal education is largely the same as philosophy, "philosophy" understood in its original sense as "the love of wisdom". A man who loves wisdom desires knowledge for its own sake, he thinks that knowledge is, in and of itself, a perfection of his soul, something worth living for. That's very much what liberal education is about. Liberal education is the education of a free man. A free man is, if not by immediate definition, by implication a man who concerns himself with things that are intrinsically worthwhile. He's not just a servant, or an instrument of other men, but someone who lives a life which is in itself worth living. So liberal education is concerned with the kind of knowledge that a man ought to have, not because he wants to put it to some particular use, a kind of knowledge that he would do without if he could have the end of that use without the knowledge, but something worth having just for itself. He's sees a kind of happiness, a kind of completeness to his life as a human being just in having that knowledge.

Now when one approaches the philosophic life, one notices that there's somebody already there, called the philosophers. No one of us is going to be the first philosopher (maybe there was no first philosopher, but clearly none of us is-they're already there). And when you take survey of those men who are called philosophers, you notice a great many things. But one of the first things you notice about those philosophers is that they disagree. They are not speaking in the same voice, they are not saying the same things, they are arguing one with the other.

If you educate yourself according to the method of this school, you see much the same thing. This is called a "great books school", and with justice because we read the great books. Now what do you see when you read the great books? Is this "the great tradition"? Well, yes and no. There is something misleading about that. This is not a tradition the way the tradition of the Catholic Church is a tradition, where there is one doctrine which is passed down from age to age and is added to, and in which I share the same Catholic faith and the same Catholic doctrine as St. Thomas Aquinas and St. Augustine. I see in St. Thomas Aquinas a development of that doctrine; not another doctrine, but something fuller. That is a clearer and simpler example of a great tradition, something handed down and perhaps enhanced and perfected from age to age, but still something one, something continuous.

When you look at the great books, however, and don't have any preconceptions, what you perceive there, at least where they talk about the same things, is a babble of discordant voices. People seem to say very different things about the same thing, and to say so consistently. They disagree about all sorts of things. I think this has a serious and even decisive effect upon education. If you were the first philosopher, you would not notice that fact. But since you are not the first philosopher, that is a fact of life you have to come to terms with.

In class here at the College, disagreement is a large part of what goes on, to the point where if there's not sufficient disagreement, the tutor makes it his business to produce disagreement. The word "discussion" comes from the Latin word "discutio" which means "to

strike asunder" or "to split apart". The word "disputatio" (disputation) means "to think apart", "to think divergently", so that your thought departs from his thought. St. Thomas has a series of works called Quaestiones Disputatae, Disputed Questions. What does that mean? Questions on which people dispute. Not every question is there. Nevertheless, every question which one might reasonably suggest is in one way or another a disputed question. He leaves certain questions out because he can't fight about everything. But the questions that do come up are all disputed questions, there are no undisputed questions. Maybe there are undisputed questions, but it's not evident from reading St. Thomas that there's such a thing as an undisputed question. Every single question of the Summa Theologiae, from the beginning to end, is a disputed question. There is no item about which he says to himself "now this is a conclusion upon which all would agree". No, this is another disputed question.

Finally, the theme of this lecture occurred to me in class discussion. It wasn't something I thought up in the quiet of my study--I have no such place anymore. It occurred to me in class, where it occurred to me that students often didn't learn as well as they might learn because they didn't grasp the significance of certain disagreements that they were reading about, disagreements among the authors that they studied, or even disagreements among themselves. That indicated to me that the consideration I am making tonight about disagreement had a general bearing on liberal education. So, all things considered, this seemed to be a good topic to address in an opening lecture. Maybe not the best, but one that was simply relevant. To study philosophy is to study disagreement. To be liberally educated is to study philosophy, and therefore to study disagreement. That's the thesis put in a nutshell.

My purpose tonight is not a general discussion of disagreement, but a more particular consideration of one aspect or part of disagreement. I want to ask myself and you "Where do philosophers disagree?" "Where" here meaning "about what do they disagree?" They have many disagreements about all sorts of things, so in a way, if you put the question to the man on the street he might say "they disagree about everything". But that's not what I'm going to talk about so much as where they disagree most typically: where do you find their disagreements as philosophers? Where are the disagreements they have by reason of which they disagree about other things?

What I'm suggesting in my thesis, which I will state more formally in a minute, is that not all disagreements are equal. If you say to yourself "They disagree about this, they disagree about this, they disagree about this...", you have given yourself a kind of manifold which is not intelligible. They don't disagree about all things equally or in the same way. As philosophers they disagree rather about these things, and because of those disagreements they disagree about other things which they would not disagree about otherwise.

In order to discuss this particular thesis "Where do philosophers disagree as philosophers?", I think I have to make beforehand certain general observations about disagreement that would put this discussion in a context that would make it more intelligible, and perhaps make it clearer why it might be important to focus on the problem of philosophical disagreement.

If you ask the proverbial man on the street what strikes him first about the philosophers, taken as group, he will tell you many things. But I think one of the first things he would tell you is that they disagree. One way of putting it is "They all have their own philosophies". He would also tend to think of those disagreements as being a kind of permanent condition--the philosophers do not move from disagreement to agreement. They move from disagreement to further disagreement.

I can recall when my brothers and I were going to college, we were studying philosophy, and we would sit at the dining room table and talk about this, that, and the other thing, and my mother would sit there listening to us with a certain horror. Finally, she would say "Why can't they agree?" And I thought that was an eminently reasonable reaction. When she listened to that discussion, what she heard was simply disagreement. Her reaction to it was the natural, normal, right, and human reaction: "This is something that should not be." Maybe it's

something that must be, something that we can avoid, because men are men, but it's something that should not be. It's like disease and misbehavior, things that despite all of our efforts continue to take place but do us no good. It is just an evil in which we must lament.

I think this is a stumbling block to the beginner. Perhaps not to all beginners, because when you begin with a certain faith in certain things, you can weather the storm more successfully. But without that, it's difficult and discouraging. It leads to a kind of feeling or conclusion that philosophical effort can never really bear fruit. What Descartes says about his education seems to be proved in your own life: If anybody knew the truth, surely he could persuade the others. This disagreement would not persist century after century after century. This problem tends to be compounded by imprudent teaching in which the teacher tends to lay before the student too many disagreements at once about too many things. He is overwhelmed by the sheer magnitude of the disagreement. Things are proposed to him out of order. He is forced to confront fundamental and wide-ranging disagreements without being able to resolve them. Everything comes to him at once. These things lead to philosophical despair.

Now I don't remember what we said to my mother on that occasion, I'm sure it was silly, but we might have replied with Heraclitus: War is the father of all, and the king of all. And he says Homer was wrong when he says "would that strife would perish from among gods and men". For, said Heraclitus, if that were the case, all things would cease to be. What Heraclitus says is perhaps not true of the ways things are, but has a great deal of truth about the way things are known. That is to say if you take what he says simply about being, and transport it to the region of knowing, you see that there is a very great truth in what he says. It is only through disagreement, contradiction, contrary arguments, that one's understanding ever has a chance to grow. One would remain in what Kant calls a dogmatic slumber if one were never challenged by certain contradictions which are raised by thinkers who are not trying to make trouble, but who are moved by the characteristics of the things they're thinking about. We'll talk about that a little more fully in a moment.

Going back to the problems that the beginner has when he's confronted with this mass of disagreement, there are at least three different ways he could react. The first way is to say "I despair". He withdraws from the philosophical enterprise. He says "Philosophy is a useless pursuit. It will never bear fruit." He says with Descartes, "Had any man ever discovered the truth about these matters, he could have instructed the others, and they would agree. But they don't agree, therefore they have not been instructed, therefore nobody knows. So philosophy is a useless enterprise, better do something else".

The second reaction, which is a more sinister one, is for the man who notices these disagreements to make the disagreements themselves the object of his study. They are not the way to anything else, but are objects which he contemplates for their own sake. He becomes, then, no longer a philosopher, but a historian of philosophy, a sort of student of culture. He studies not the things that the philosophers study, but the philosophers themselves. They are the objects of his interest. A good many of what are called professional, academic philosophers fall in this class. They don't ever think of themselves as trying to understand or as seeing the truth about the things themselves, but they are experts on the philosophers. The philosophers are the objects of their study.

The third possibility is that the beginner, if he has a strong mind, will see in these disagreements (where the disagreements are supported by argument and are not just willful) an opportunity to learn. This man will say to himself:

People disagree because the object of their study is difficult. Why should it be surprising that it's difficult? All good things are difficult. And if knowledge is truly good knowledge, the best knowledge you could have, you have to expect that it's going to be difficult. But if it's difficult, many will fail. If it is very difficult, most will fail. So the fact of disagreement should not make you think about the matter any differently from the way you did before. You have to gird up your loins, and not allow that unfortunate fact to discourage you. Indeed, this fact doesn't even prove that [philosophy] hasn't been done.

One needs to challenge what Descartes says: "If a man really knows the truth, he can show it to everyone else." That is perhaps, upon examination, not at all evident. The second thing that the brave beginner will say, or see, is that these disagreements are in fact an opportunity for him. They're not just something that should not be, or some kind of obstacle which he would like to run around if he could. They give him the opportunity that he needs to learn something.

Both Aristotle and Plato exemplify in detail what this means. In the first place, what they do for a man is show him his ignorance. At first, that might seem to be no great thing; a good and humble man says to himself "I'm ignorant of many many things. How little do I know!" His problem as a learner, however, is he has no focus for his knowledge of his ignorance. What specifically is he ignorant of? Until disagreements lead him to difficulty, and intellectual tangles, he never knows in any specific way where his ignorance lies. He doesn't know what questions he should ask, let alone knowing how he should go about answering those questions. His knowledge of his ignorance is an altogether impractical thing, at least if "practical" means "leading to some kind of knowledge". One of the great virtues of Socrates, then, is that he makes his listeners aware of their ignorance (they think they know, when they do not know). But that awareness would not lead them to anything specific, unless he showed them their ignorance about a specific point, and showed them more or less exactly where that ignorance lay. Otherwise, it's just a pious sentiment--a good one, no doubt, but one that has no fruit in terms of coming to know.

Another point, which Aristotle makes by way of a likeness, a metaphor, is that the man who has not seen the difficulties is like a man who does not know where he has to go, and will not know when he has got there. When you see the difficulties that confront you with respect to a particular matter--this argument leads me this way, whereas another argument leads me the opposite way, and here I am with two minds about it, stuck, tied up as Aristotle says--the ideal thing is to take a look at that knot, and to see what it is that's gotten tied up. And then say to yourself "How do I know where I'm supposed to go, specifically, in a way that will guide me to my goal? Well, I have to solve those difficulties. That's what I'm aiming at. And how will I know when I get there? If I find a principle that enables me to resolve those difficulties without doing violence to the truth that's in them. So the man of brave of confident philosophic spirit does not allow the disagreements to discourage him, but rather says to himself "This is the opportunity I've been looking for. This is the way to the truth. I did not know what to do beforehand. I wanted to know, but I did not know what it was I wanted to know. The difficulties tell me how I am to proceed."

With this as our background, I'd like to turn to the specific concern of my lecture, which is more particular. The disagreements that strike the beginner, the man who wants to learn, the person who philosophizes, who desires wisdom, these disagreements are not all of a kind. I think it's worthwhile asking "Granted that the philosophers disagree, are all their disagreements typically philosophical disagreements? Are they all disagreements that characterize the philosopher as philosopher?" This is my thesis (sooner or later it had to come): The philosophers disagree principally and typically not about what is true and what is false, not about what is certain and what is uncertain, not even about what is obvious and what is not obvious, but rather they disagree about what comes first. They disagree about the something in the light of which other things are to be understood. But, the second part of the thesis, Because they disagree about what comes first, as a consequence they disagree about these other things, not necessarily all of them, but a good many of them. They do indeed disagree about a lot of things as regards simply whether they are true or false, whether they are certain or uncertain, whether they are obvious or not obvious. But it is not intelligible that they should disagree about most of those things without seeing where their disagreement begins. By "where their disagreement begins" I don't mean what the cause of their disagreement is, like their custom, or their moral habits, or their perversity; that's another issue. I mean where does their disagreement typically begin--what is the first thing about which they disagree?

I am going to argue this thesis not from general principles, but from the analysis of certain particular examples. One could argue it from general principles. One could argue, for

example, that a philosopher is one who seeks wisdom, and that to seek wisdom is to seek not just an understanding of the way things are but principally to seek an understanding of why they are the way they are, to look for their principles and causes. If that's what philosophy is, then philosophy is a quest in search of what is primary, of what comes first, not of truth indifferently, but of the truth that is before all other truth, the truth in the light of which other truths must be seen. Or, put in terms of the things, philosophy is not just a quest for knowledge of the things as facts, but a knowledge of the things in terms of their principles and causes. If that's what philosophy is all about, then the kind of disagreement that is typical to philosophy will be exactly on that point. Philosophers' disagreement qua philosophers will be about the principles and causes in the light of which other things must be understood. So one could make a kind of general and abstract argument along those lines and develop it. But I think that's less proportioned and it's not the first thing to say. As a matter of fact, I would be abusing my own insistence that you put first things first if I developed the argument in that way. I think it's better to argue this point now and this evening inductively, by considering the kinds of disagreement one sees in particular cases, where one sees philosophers in opposition, and then try to show how disagreement is rooted not so much in the facts that stand before us all, but in what each philosopher judges to be primary.

One has to make a distinction, when one talks about the primary. One could mean what is primary as regards the things themselves--what among the things we study are the primary beings which are the principles and causes in terms of which the other things are what they are? The other sense of primary is "primary in knowledge". What is most known to us, what is most certain to us, in the light of which we must understand other things? These two criteria sometimes overlap, but are separated more often than not. Those of you who have begun the first book of Aristotle's *Physics* are aware of that distinction. Almost the very first thing that Aristotle says is that what is first in our knowledge is not first in the being of things. I think philosophers disagree about what's first in both those ways. And in the examples that follow, I think I'll exemplify both of them, sometimes separately, sometimes together.

My thesis, then, is that what philosophers, qua philosophers, primarily disagree about is what comes first, whether it be what comes first in knowledge or what comes first in being (in the very substance of things), and that because of that disagreement they disagree about a lot of other things which disagreement is not very intelligible if you consider it by itself. You say to yourself "Why should they disagree about that?" Just looking at the thing itself, it's a strange thing indeed. That's why so many philosophers here, student philosophers and maybe even faculty philosophers, have a tendency to say "There's Aristotle and St. Thomas and St. Augustine, and they make sense. The rest of these guys are oddballs. What funny things they say." I think one is inclined to say things like that for a number of reasons, but one of them is that one does not see the nature of the disagreement. One says "He says X, or Y" and looks at the strangeness of that thing in and of itself, and so it is very hard to see why he would say that. And then you tend to say what the man on the street says all too often: "Philosophers are not like other men; they live in a world of their own. There's no way of understanding what they say without understanding their individual peculiarities. Why bother?"

One might illustrate that distinction between what's first in being and what's first in knowledge. Aristotle says, in the *Physics* and elsewhere, that all causes are of four general kinds: the material, the formal, the agent, and the end. That's a statement about the causes of things, he's talking about what comes first in things. Or Empedocles, the great Greek philosopher, says "All things come to be from earth, air, fire, and water." That's a statement about what comes first in things. He's not saying those are most known to us. They may be, but that's not what he's saying. He's saying those are what come first in things. By contrast, Aristotle will say in the *Metaphysics* that the premise, the proposition, which is presupposed to every other proposition, is this one: that a thing cannot both be and not be at the same time and in the same respect (called the principle of contradiction, or by those who are fussy, the principle of non-contradiction). Well, notice, that principle or that premise is not the cause of anything's being or anything's coming to be. Thing's do not exist or come to be because a thing

cannot both be and not be. Rather, it's a principle of our knowledge. That is to say, unless that's true, and we grasp the truth of that, at least as implicit in other propositions, we cannot know anything whatever. Because, of course, to negate that proposition is to remove the distinction between the true and the false, which is to remove the very possibility of knowledge. So the principle of contradiction is not a principle of being. It may be founded in some principle of being, but it's not itself a principle of being. It's a principle of knowing. Unless you know that, you don't know anything.

### First Example: The Fifth Postulate

With that in mind, let's proceed to the particular examples. The first example I want to give is one that might not seem to be philosophical, but it is philosophical in the sense I defined earlier. It's taken from Euclid's geometry. Most people will say that geometry is one thing and philosophy another. But if philosophy is the love of wisdom, then geometry is a part of philosophy. It's a kind of knowledge which you seek for its own sake, and it's the kind of knowledge that the lover of the best kind of knowledge (since it's not wisdom) cannot afford to be without, because one finds within geometry not only a participation in wisdom, but also a kind of way into things that have more perfectly and completely the nature of wisdom. So I think Euclid's geometry is a good example to give first, one that's simple and accessible.

When you look at Euclid, you find something that seems very perfect and, I think, indeed is very perfect. But one of the most controversial things in Euclid's geometry from the earliest times has been his fifth postulate. That postulate has been controversial from the earliest times not because critics thought it wasn't true, or because they thought it wasn't certain, or even because it wasn't obvious to them. Rather, their criticism was this: it's not primary. It should not have been put down as a principle, it should have been deduced from other things as a theorem. The fifth postulate, worth stating, is this: If there are two straight lines in a plane, cut by another, and the angles on one side of that transverse line are less than two right angles, the straight lines will meet in that direction.

Now that postulate has been a subject of controversy from the time of Euclid up till the middle of the nineteenth century, and it is a very interesting controversy because at least until the middle of the nineteenth century nobody doubted that it was true, nobody doubted that it was certain (because to be true in mathematics is to be certain--there's no other way to be true there). Nor did they even doubt that it was evident. Though they are perhaps less clear about that point, they had a certain confidence that it was going to be proved. Why? It's obviously the case, it must be true, and therefore, if it's not primary, it must be provable.

Let's take account of these attempts at proof. What's characteristic of these attempts at proof is that they all assume some other or alternate postulate, which the demonstrators think is more evident and more fundamental than Euclid's postulate. There's a virtually universal consensus among all who have considered the matter that all these proofs have failed. From the time of Proclus, for example, who was not too long after Christ (I guess he was A.D. 80), up until the middle of the nineteenth century when they stopped trying to prove it, all these proofs failed.

But what's more interesting and significant, is that the attempts to prove it failed in one or both of two ways. Either the demonstrators would assume something ungeometric, something contrary to the other principles of geometry, like one demonstrator assumes that a line can be made out of points, or that asymptotes will meet at infinity, both of which are contrary to other principles of geometry which they make no objection to. Or, the more typical case, is that the demonstrators will assume something else instead, something in place of Euclid's postulate. What turns out to be true about these postulates is that all of them (and there's not a single exception--well maybe there's one somewhere in the library in Leningrad, but I've never seen a single exception) have been shown, upon analysis, to involve Euclid's postulate plus something else. So it's not that these demonstrators assumed something that wasn't evident, but that when one analyzes the something evident they assume, one finds that in there is Euclid's postulate plus something else. Nor is Euclid's postulate there just as following from it as a conclusion,

but as implicit in the proposition as something evident.

Take as an example (I'll analyze it more particularly in the question and answer period, if you care) what's called Playfair's Axiom, which is the basis for an attempted proof. Playfair assumes this, he says: if there's a straight line in a plane, and a point not on that straight line, only one parallel can be drawn through that point. So it would be like saying every straight line has only one parallel through a given point. That's an attractive alternative when you first hear it, because it has fewer words than Euclid's. But what one discovers when one analyzes Playfair's Axiom, is that it could not possibly be evident unless Euclid's postulate were also evident as well as something else besides which can in fact be demonstrated. So what you have in Playfair's Axiom is Euclid's postulate plus a theorem. Subtract the theorem, and what you're left with is Euclid's postulate.

The failure of all such proofs in modern geometry has led to what's called Non-Euclidean geometry, in which one says "Suppose that Euclid's postulate is not true, suppose we assume the contradictory. Let us develop a system based upon that assumption". Now the development of such geometry is not intelligible unless one sees it as preceded by centuries of trying to prove Euclid's postulate. If you look at the postulate itself, you see no reason within it to doubt it. You do see it as less evident than the others; there's a more and a less there. But you don't see there any reason to suspect that the opposite might be true. You represent the situation in your imagination, and no matter what you do, those lines meet. If you allow your imagination to give you some sense of what happens when lines are so disposed, they inevitably meet.

Now there are other philosophical assumptions that operate here. Some philosophers think that if a thing is less evident, it's not evident at all. And that has some role to play in the development of Non-Euclidean geometry. Nevertheless, even those who think Non-Euclidean geometry is a legitimate enterprise, are in agreement in holding that it's not an intelligible enterprise apart from the previous attempts to prove the fifth postulate, the attempts to prove Euclid's postulate from some other premise which would be prior to it, more evident, and more basic.

It's worthwhile asking something that most of the modern critics don't ask. They don't seem to recognize what the thrust of those unsuccessful attempts actually is. It seems that if one assumes Euclid's postulate, along with something else which is not evident and can be proved, that one is in fact not failing to see the truth of the postulate. One is seeing it, not in itself, but as implicit in something else. All these attempting demonstrators did have some premise that they adopted. That premise included Euclid's postulate. It was the first principle that they relied upon. How, then, did they differ from Euclid? Euclid saw that that was the first principle. They did not see that that was the first principle, because they mixed it up, they clothed it, with a number of extraneous assumptions that had nothing to do with its evidence. The history of Non-Euclidean geometry in no way demonstrates that that postulate is not evident. What it demonstrates is that it's difficult to realize that that postulate is the postulate, because those who deny it, with the exception of those who fall foul of more fundamental principles, those who deny it always assume it. So they agree with Euclid as regards the truth of the premise. What they disagree about is whether it's the premise.

This illustrates clearly, too, Euclid's peculiar excellence as a geometer. We can see that more deeply and more clearly than we would see it otherwise. It's not that he saw that the things in geometry were true. Most people suppose, I guess it's right, that most of those theorems were not discovered by Euclid himself. It's not that he saw that they were true for the first time, that he was the discoverer of all those things. No, what he saw, and what makes him the great thinker that he is, is that he saw what came first. The peculiar excellence of Euclid's *Elements* is its order, what comes first and how things are ordered with respect to what comes first.

When people speak about Euclid, they often say that Euclid did not discover these demonstrations, he *compiled* them. Well, that's not fair. It's not a compiling that takes place there, it's an ordering. Compiling is the work of a servant, ordering is the work of a master.

It takes a small man to put all those things together in a heap, and put them in a book (there was a fair number of those around even in ancient times). But Euclid didn't do that. He didn't just put them together. He put them together in order. And maybe his order is not perfect everywhere, but what comes clearer and clearer when you study Euclid, over and over again through the years, is that there's a profoundly ordered system there, that if Euclid has anything to give us that we couldn't get from the other geometers that came before him, it's a sense of the way things ought to be ordered. Of course, that goes back to one of the marks of the wise man that Aristotle gives and that St. Thomas repeats at the beginning of the Summa Contra Gentiles: the wise man is the one who can order, he's the one who sees the order. That, then, is the peculiar excellence of Euclid, as you see it on the basis of the fifth postulate.

So how does Euclid differ from all his critics? Not in what he regards as true, but in what he regards as primary. And the corollary is, if he's right, wherein lies his peculiar excellence as a geometer: not in the fact that he sees the truth of this theorem and that one, but in that he sees the order, in that he sees what comes first. He sees what is most evident, most obvious, in the light of which other things ought to be seen. In that way, he's a philosopher.

#### Second Example: The Universal

The second example is more difficult. It has to do with logic. In this college we read Aristotle's Organon, which is his treatise on logic. "Organon" means "instrument" or "tool": Aristotle thinks of logic as being the common method of proceeding from what we know to what we don't know in all the sciences. Each science has its proper method, things that are peculiar to it, but there is in addition to this a common method that belongs to all the sciences, something that anybody who wants to learn anything in the sciences ought to know. That's what his Organon is about. It's not about mathematics in particular, or ethics in particular, or natural science in particular, but about the method that is common to them all.

Now, Aristotle's Organon begins with a book called the Categories, and the Categories is preceded in the tradition by Porphyry's Introduction, which does nothing more than supply the meanings of the names which Aristotle makes use of in the Categories which must be understood in order to understand what he says there. You find, at the beginning of the Categories, and in Porphyry, certain distinctions that are the basis for the whole book. For example, certain divisions and distinctions like the following are proposed. Porphyry distinguishes five universals. He calls them the genus, the species, the difference, the property, and the accident. These are all various sorts of universals.

A universal is something which is one in itself, in terms of its meaning, but can be said of many. Porphyry starts out, in Aristotle's tradition, by distinguishing the various ways in which a predicate may be universal. Some predicates, for example, answer the question "What is it?" about their subjects. Other predicates, don't. If I say "Socrates is a man", "man" answers the question "What is Socrates?" If I say "Socrates is bald", that may be a true statement, but it does not answer that question. So the first business of logic, in the tradition of Aristotle, is to distinguish and understand the kinds of universal.

Other distinctions in the Categories then develop that a little bit further. Aristotle begins by talking about equivocal names and univocal names and derivative names. He makes the distinction between things that are in a subject, things that are not in a subject, things that are said of a subject, things that are not said of a subject. He distinguishes the ten categories themselves.

The beginner, I think, can make a mistake here. He says this to himself: "This is philosophy. Philosophy is hard. This is hard." He says to himself: "Aristotle is wiser than I am. It'll take me a lot of effort to get where he is. Don't expect anything to be easy. This must be really hard." In other words, he expects difficulty at these points, in the making of the distinctions that are right there at the beginning of the Categories. Well, I think it's true in philosophy, as it is in the other parts of life, if you go looking for trouble, you'll almost always

find it. And I think this is a very good example of how that happens. This beginner expects in these basic distinctions that Aristotle makes something more difficult than is actually there. And if it seems easy to him, he thinks that couldn't possibly be right because it's too easy. The problem is he locates the difficulty in the wrong place. He expects that to be hard, but that's not what is hard.

So where is the difficulty? Let's answer from the tradition, the tradition of Aristotelian commentary, especially St. Albert the Great: The universal is that from which everything else in logic is determined. That is to say, you cannot understand what reasoning is, what syllogism is in particular, what induction is, except in terms of the universal. The real difficulty here is not in seeing what is meant by genus, species, difference, property, and accident, or in seeing what is meant by universal. What's difficult to see is that this is the distinction upon which everything else depends, to see that you are to understand other things in the light of this. That is much more difficult. The question, then, is not so much whether those questions are meaningful, or whether they are true. The question is whether this is where you start, whether these are the distinctions in the light of which other things are to be understood.

Within the logical tradition that comes from Aristotle, as I said, you can't understand what deductive argument is, or what inductive argument is, without the universal. Indeed according to that tradition those things cannot even be, let alone be understood, without the universal. This is what is hard to understand. And this is why, if Aristotle's right, he deserves to be called the Philosopher. Not because he sees these things, since we all see these things more or less explicitly, but because he sees that these are the things that come first, in the light of which other things are illuminated. He sees, then, not just what they mean, or that they're valid, but that all of logic depends upon them. This is what is difficult, this is where disagreement reigns.

Let's see, if we can, some of the consequences of this disagreement. Most of modern logic begins, not with the study of the universal, but a study of inference. Inference is speech or some composition like speech in which something follows from something else necessarily. You soon encounter what they call "truth tables": If p implies q (p means a proposition), then not q implies not p, but not p does not imply not q. When you translate it into language it's perfectly obvious and true and, by the way, important. But that's where they start. They don't start with a consideration of the universal, but with a consideration of inference which they define as one thing following of necessity from another.

One consequence of this is that one is not able to make a fundamental distinction between reasoning and calculation. Because reasoning and calculation have this in common: certain things being given, other things follow necessarily from what is given. Furthermore, in both reasoning and calculation, there's a kind of gathering. In fact we use that word: "I gather from what you say..." "I reckon" There's a real likeness there between reasoning and calculation. In both cases, there's a sort of a gathering of the many into one. That's seen particularly in the universal premises that reasoning makes use of.

But the sort of gathering that we find in calculation is more known to us, more familiar, than the sort of gathering that's characteristic of the universal. It's something that's in a way sensible and imaginable. Here's one thing, here's another, here's another, here's another, and another, and you see the whole collection of them. That's a gathering as in calculation: 1, 2, 3, 4, 5, one outside the other. Most of you will find it very attractive to analyze the syllogism, when you get to that point in logic, in terms of overlapping and containing circles. That appeals to our imagination. Here's the larger class, and here's the smaller class contained in it. Some men are just--here's the class of men, here's the class of just men; they overlap. This is our way of understanding propositions. And it is natural that we should do so, because that's a sensible and imaginable whole, made up of constituent parts each one of which you can imagine next to the other. There is always and inclination to reduce the kind of whole that you find in universality to the kind of whole that you find in a collection of individuals.

For this reason, then, as modern logicians proceed, universal statements like "all men are mortal", are understood or conceived as statements about collections. One sign of that fact is

that they almost always choose the word "all" rather than "every". "Every" takes the collection member by member. It's singular in number, grammatically. But most analyses say not "every man" but "all men". That lends itself to conceiving of the universal proposition as a statement about a collection. Now when I look out upon this group I say "everybody in this room is sitting down". How do I know that? Not from knowing the nature of this room. I look out and I see that you're sitting down, you're sitting down, you're sitting down etc. That way of making a universal statement tends to make you conceive of the universal statement as a collection of particular statements. You see something to be true in each particular case, and therefore you can some it all up in the universal statement. You're sitting down, you're sitting down, you're sitting down, therefore you're all sitting down. I don't think that it's necessary to take that step, but it's usual, characteristic, and typical to take that step.

So on this view, how is the universal statement known? Well, once you take that view of the universal statement as a kind of summation of particulars, then a universal statement is known by knowing each particular which is under that statement. I know that you're all sitting down by seeing that each one of you sits down.

This leads to rather striking disagreements, not only between Aristotle and the moderns, but also between the modern logicians, all of them or some of them, and ordinary common sense. For example, the modern notion that a universal statement is a summation of all the particulars leads to the further point that one never knows anything deductively that he did not know before. Because, of course, by this view of things, you see the general statement only by having seen every single particular beforehand. So as the moderns analyze this particular situation, there's a necessary consequence. Every man in this room is sitting down, I'm a man in this room, therefore I am sitting down. There's a necessary consequence, there. But there's no advance in knowledge, because you couldn't have known the truth of the general statement without already knowing that I'm sitting down.

That is a strange statement when you examine it in the light of your ordinary experience. All of us, even before we tried to do philosophy, have had the experience of knowing or seeing that something is true by being given the reason for it. There are two obvious things about that. First of all, when you're given the reason for holding that something is the case, the form of the argument is deductive, syllogistic. The reason is a kind of middle term (in Aristotle's terminology). That's the first point. The second is that you actually know something when you get through that you didn't know before. There's a conflict, there, with common experience in that analysis of deduction.

Another thing you notice is this. According to the modern analysis, induction is not a knowledge of the universal from the particular, but a prediction of the future from the past. Up to now, all cases have been of this sort, and therefore from now on cases will be of this sort. Induction, on this view, becomes a kind of anticipation. Now if you consider that in the light of ordinary experience, it doesn't make much sense either. You watch your children making inductions from the time that they're quite young, and it's perfectly clear that they're not predicting. They're gathering particulars, and what they draw from those particulars, even though they're not all the particulars that could possibly be, is some universal statement. Now they might take that universal statement, and apply it to some other particular case in the future, but that's not what they're doing when they're inducing. They're gathering particulars and drawing from that collection of particulars some universal truth. There's a way in which that account of induction has no correspondence to induction as you actually experience it before you study logic.

Now this particular matter leads to a kind of puzzle for modern philosophers: they wonder how induction can possibly be anything other than arbitrary. They say to themselves, "How do you know that what happened in the past is going to happen in the future?" If you say "Because what has happened in the past has reliably happened in the future. It's always worked in the past, so it will continue to work in the future", you're open to a very obvious objection--that you're assuming the validity of inductive inferences by that very fact. You are saying to yourself: "Inductions have always worked in the past, therefore they will work in the future." But that's precisely the thing that's at question. One modern philosopher whom I read

recognizes that point, and finally he says sort of in despair "Well, that's the best that we can do. And when a man has done the best he can do, you can ask nothing more of him". He just gives up the whole attempt to give any kind of rational account of induction.

Why should he be driven in the first place to regard induction as a form of prediction? Not because it's plausible in itself, since if you listen to people making inductions, you say "That's not what they're doing. They're not inferring the future from the past. They're inferring universals from particulars. And universals have no particular reference to this or that case". Well, I think that that disagreement is not intelligible if you try to conceive it apart from what it grew from. It is because they do not see reasoning as being founded in the universal, modern philosophers conceive of induction the way that they do. And it's because they see induction and deduction the way that they do, that they come up with these paradoxes about deduction and induction that seem to contradict the most obvious facts of experience about argument.

The experience of argument is not as immediate as certain other kinds of experience, but we all have it, we see what people do when they give reasons, we see what people do when they make inductive arguments, and it simply doesn't fit the description that these philosophers give. But to think that that's where they start, that that's a point standing all by itself, is to make that disagreement unintelligible. That forces you to think all philosophers are oddballs, and they say funny things, things that have no relationship to the way we live and to the ordinary facts of experience. That's not how they got that way. They got that way by trying to be philosophers, by trying to see what was first. And because they judged that this was first, they're forced by the logic of their position to say certain things they would not otherwise say, because nothing else fits with the assumption that these are the primary items.

# Third Example: The Principles of Becoming

My next example is from natural philosophy. I think it's perhaps a little bit easier to see. Thales is often described as the first philosopher. He said all things come to be from water, but difference arises in them because some things are denser water, other things are rarer water. What makes that philosophical? Maybe it's bad philosophy, but it's philosophy. It certainly would be ridiculous to say that Thales discovered water, or that Thales discovered the dense and the rare. Water is perhaps as familiar as anything that's in our ordinary experience. Where he would be a great philosopher if what he said were true is not in knowing water, but in knowing that water is the principle. That's where he's a philosopher. Similarly about the dense and the rare. The dense and the rare are not strange entities that only a few investigators discover after a long time. They're not like the lost city of Atlantis, that most of us will never know. No, they're familiar, that's a familiar distinction found in ordinary things known to all of us. So where is the philosophical move in what Thales says? Not in positing the dense and the rare, but in positing that those things are the principles. In that, he's a philosopher. Perhaps an unsuccessful philosopher, but still a philosopher, because he sought to say what came first. Perhaps having said that, he will go on to say some other strange things, but those strange things shouldn't obscure the nature of what he did.

But let's talk about something more particular. When you study Aristotle's *Physics*, you find that he's investigating the same question that his predecessors investigated: what do things come to be from? What are the principles from which the things which come to be, come to be? And the answer that comes out of the first book of the *Physics*, if this does not ruin the story for the sophomores, is "matter and form". These are the intrinsic principles, the principles that are within the things themselves.

Now here, I think, one could make a mistake like the one I referred to in logic. You can think that in talking about matter and form, Aristotle is talking about something strange. I remember, when I was in college, after having read a treatise by St. Thomas called *The Principles of Nature*, which I thought I understood (and I think I did understand), I ran across a reference in literature to something called a "hylemorphic theory". And I said to myself

"What in the world is that?" But then I found out that the word hyle was the Greek word meaning "matter", and the word morphe is the Greek word meaning "form", and "hylemorphic" was a compound of the two. The use of the Greek derivative gave the whole thing an appearance of strangeness it hadn't had for me before. It almost looked to me as if Aristotle had discovered a strange substance like phlogiston, called "hyle", and another strange thing called "morphe", and that these things, which probably could not be understood by anybody but a Greek, were yet put together into some kind of a theory which we could study but never hope to understand.

Fortunately, I read St. Thomas first, and I had some sense that there was nothing strange about the language and nothing strange about the distinction that the language points to. So St. Thomas will say, for example, if we make a statue, we have to have clay and we have to give to that clay a certain shape. We call that the matter of the statue, the stuff that it's made out of, and the form. It's also not hard to see that those are not only different principles, but different kinds of principles, that clay and shape don't make up the statue the way the letters C A and T make up the word CAT. Because C A and T all make up the word CAT in the same way. They are material constituents, whereas the form is a principle of a different sort. One of the first things one has to realize is that there's nothing strange about that distinction. He's not pointing at something that you could only discover with a microscope or a long argument or some kind of subtle initiation to the mysteries of philosophy. He's talking about what we already know.

Well, then, where does the strangeness and the difficulty come in? I think it is (at this point quite obviously) in saying that this is the way everything is to be understood. But this doesn't just tell us about the statue, it tells us about everything else, that this is an instance (a fairly clear instance) of the sort of composition that is most basic in nature, that is presupposed to all other composition. In a piece of music, for example, the tones are what the music is made out of. The order of the tones are, as it were, the form of the music, what makes the music the music that it is. So the arrangement of the notes or the tones is to the tones as the shape is to the clay. The shape makes the clay a statue, the arrangement makes the tones this particular piece of music. But to say that's true not only for the statue and for the music, but everywhere in nature, that everything has to be understood in the light of that distinction, that's what's hard.

Compare Aristotle in this connection with another philosopher whom he very much respects: Empedocles. Empedocles says that everything in nature is made from four elements: earth, air, fire, and water. Aristotle agrees. I guess they're both wrong. But they agree on that point. Where do they disagree? Empedocles says that is the most fundamental distinction, you can't go back to anything more fundamental than those four. Aristotle says "No, that is not the most fundamental distinction. The most fundamental distinction is like that you find within the statue". So that within earth, within fire, within water, and within air you find a more fundamental distinction, a more fundamental division. These are not the absolutely simple things, not the absolutely primary things, there is something more fundamental. And that's what's hard to see.

That's something the truth of which you can't appreciate when you read it in Aristotle, when you read the first book of the *Physics*. You have to sort of see, as you proceed through philosophy and make an effort to understand things, that there is finally no other way of understanding things that fits the facts. But you don't see that just because somebody says "matter and form" any more than you would see it if somebody said "earth, air, fire, and water". Earth, air, fire, and water are perfectly obvious things, there's nothing strange about them. What's strange, difficult, and hard to know, is that those are the things from which everything else comes. That's what's hard. And that's where Empedocles is a philosopher, and it's in the disagreement with that Aristotle is a philosopher. And that's the disagreement that characterizes them as philosophers.

But now Empedocles will go on to say that there is no such thing as birth and death. There is no such thing as coming to be and passing away. There is nothing really substantially

new under the sun. There's only the mixing and the unmixing of things that eternally exist. Furthermore, there's no alteration. Things never get any hotter, never get any colder. Why? Because fire is hot, and water is cold. If fire could make water hot, it could act upon water, could make water cease to be water. But water must always be, because it is the first principle. So whenever you feel something hot, what you're feeling is the heat of the fire that's in it, not a heat that's been communicated to that thing. If you take Empedocles, and draw out the consequences of his view, there's no change of substance, there's no change of quality, and there's no growth. Because growth similarly requires a change of substance. All there is is moving around. That's a strange position, if you consider it in itself, because it denies the premise for the question that makes philosophy start in the first place.

The Presocratics, as all philosophers, ask the question "Where does being come from?" And what they meant by that was primarily "Where do the substances come from?" The answer that Empedocles gives is that they don't come from, they are. Nothing comes to be. What he does in his philosophical doctrine is undercut the very questions that give life to philosophy in the first place. Because it's a matter of ordinary experience that there are things that change place, there are things that change their quality, there are things that change their size, and sometimes in a change you don't have the same thing in a different condition when you're done, you have an altogether different thing, a thing that's not the same subject anymore.

But if you said to yourself "Empedocles denied substantial change", if you looked at that just in itself, you'd say "What a perverse fellow he is. Is he telling us that there is never any such thing as a new thing in the world? That all we ever have is the same old things in a different arrangement? Why would a man say that? He must be a bad man." But I think the truth is this. Empedocles didn't start with that, it's not the departure of his philosophy from which he takes everything else. It comes about because he has made a certain judgment about what comes first. What comes first are four elements each of which has a distinct and eternal nature: earth, air, fire, and water. And there are reasons to be given for that position. But having taken that position, then when you go back over ordinary experience, the kind of common experience that gives rise to philosophy in the first place, you find there are all kinds of things you have got to get rid of. You find yourself in what a modern physicist called the Procrustean Bed of science, where you have to cut up your customer to fit the bed. You started out with a certain set of data, which you tried to accommodate an explanation to. But the end result is that you are doing violence to the givens for the sake of the explanation that you have adopted. But it doesn't start with the desire to do that. It turns into that because the philosopher has made a judgment about what is primary.

Another distinction Aristotle makes is the distinction between the actual and the potential. That distinction is sometimes made to sound kind of strange, because one says "potency", which is not the ordinary English word. "Power" would be a better one, or maybe better yet, "is" and "can be". There are certain things that are, certain other things that are not, and yet other things that are not but can be. One might say "A rock does not see. A man with his eyes shut does not see". In that respect they are the same. But there is a very fundamental difference between the two of them. The man does not see but he is able to see, whereas the rock does not see, but is not able to see. That's the distinction between the actual and the potential. It's nothing strange or bizarre, requiring any great effort on anybody's part. Everyone makes that distinction. I'm not doing it yet, but I can do it. This clay is not a statue but it can be a statue, whereas the air is not a statue and it can't be a statue. So it would be a very great mistake to think that the distinction between the actual and the potential is one that's hard to grasp, that belongs to philosophers, that is something peculiar to Aristotle's system of things. No, here as elsewhere, what's distinctive about Aristotle is that he sees, or at least he maintains, that this is the basic distinction. Other distinctions are to be understood in the light of that; you can't reduce it to anything more fundamental. Not only is it real, it is also primary.

We could illustrate this with another philosopher he has a great deal of respect for: Anaxagoras. Anaxagoras, I suppose, is like the rest of us, granting the reality of all those distinctions, and of that one in particular. But Anaxagoras was struggling with the same question that all the other early philosophers struggled with: "What does being come from?" Well, he says certain things that all of us would grant. Things which are heterogeneous come to be from things that are homogeneous. For example, my arm consists of flesh and bone. There is something heterogeneous because the flesh is something qualitatively different from the bone. You couldn't think of the arm as being anything primary in reality, because it's composed of things having different qualities, different natures. What Anaxagoras saw was that we always have to lead the heterogeneous back to the homogeneous. That left him with a pretty large list of things. Not only earth, air, fire, and water, which Empedocles had, but also bone, flesh, blood, and hair. Things of that sort which have a homogeneous texture so far as you can see: the parts of flesh are flesh, the parts of bone are bone, the parts of hair are hair.

So he asked himself the question a little more sharply: "What do homogeneous things come from?" With respect to these things, he found himself in a bind. He said "Either they come from nothing, or they come from other things. It makes no sense to say they come from nothing. All the philosophers are agreed on that point that something does not come to be from nothing. Therefore they must come to be from something else. But if they come to be from something else, how can they be themselves and not that something else?" In other words, if bone comes to be from water and earth, how can it be that bone is bone, and not just water and earth? Does it not follow that bone is just a name for something that is in fact water and earth? But Anaxagoras was not willing to accept that alternative, he was certain enough that bone was something real and substantial. He was left with only one alternative; bone must come to be from bone. That's the only possibility. But how could that be? How can a thing come to be from itself? Only one way he could think of (and only one way I can think of): big pieces of bone can come from little pieces of bone. The bone you see can come to be from the bone that you don't see. Then you do have a kind of novelty in the world; there's something there in some way that wasn't there before. That's the explanation that Anaxagoras adopted. When bone comes to be, it comes to be from little particles of bone that are already present, and that are gathered together to such an extent that they become visible. So the small becomes great by addition, and the invisible becomes visible by addition.

Now what's become of the distinction between the actual and the potential? Does bone come to be from that which is not bone but can be bone? I think it would be a mistake to say that Anaxagoras denies that. What he says is what it means to be, or finally what it is to be, potentially bone is to be little bits of bone that are hidden. That's what potential bone goes back to. What it is to be actual bone is to be the little bits of bone that have been gathered together in large masses so that it's visible. He leads the distinction between the actual and the potential back to other distinctions which he regards as more fundamental. It would, then, be a mistake to say "Aristotle maintains the distinction between the actual and the potential. Anaxagoras denies that". That's to make Anaxagoras into an oddball and a nut. That was not what he said, as I understand it; in fact, he doesn't say anything explicitly about the fact at all. His denial of the potential as a division of being is not an original fact about his thought, but something which follows from those things which he judges to be principles. He thinks that you can reduce that distinction to a distinction more fundamental. And therefore, if he denies that distinction, his denial of that distinction not of the distinction itself, but of that more fundamental thing which he takes to be primary.

Given this position, you are led to certain consequences that seem ridiculous if you contemplate them by themselves. For example, what are you going to have to say about becoming? You are going to have to say that a thing that becomes something else, is already the thing that it becomes, inasmuch as it contains particles of the thing that it's to become already. But becoming goes on and on and on and on, we never run out of novelty in becoming, so not only must the thing contain that which it becomes, it must contain that in infinite supply, so that time will not cease. And not only this thing, but everything that is liable to become. But how could that be, given that its bulk is finite? Only if it have an infinite multitude of particles, which are infinitely small. No other way can you conceive of cramming all you need within the finite spaces of any given body. So he is forced to say that everything

which exists consists of an infinite multitude of infinitely small particles of everything that it could possibly become.

Well, that's like standing in front of a boxer with your hands at your side. It invites aggression. For example, one might say if everything consists of an infinite number of infinitely small particles, how come some things are bigger than others? And why do you call a thing by the name of one thing rather than another? Anaxagoras says that each thing is called by the name of what's most in it. But that doesn't sit very well with the assumption that everything's got an infinite supply of everything else in it. If I've got an infinite number of particles of bone, an infinite multitude of particles of flesh, an infinite multitude of particles of water, how can there be more of one in me than of the other?

The position of Anaxagoras, if contemplated on that level, invites ridicule. The student of philosophy is liable to say to himself "Why bother with this stuff? These guys are nuts. Why not do something that makes money or that does some good in the world and has some kind of intrinsic reason for its being?" But one should not see these strange positions as things the philosophers adopt on their own, but as a result of their earnest attempt to be philosophers. In their earnest attempt to be philosophers, they attempt to see what comes first. And in seeing or thinking they see what comes first, they find themselves driven to certain conclusions which wouldn't seem evident to them otherwise: "I'd just as soon not say this, but I don't know what else to say!" In other words, the philosophical impulse that reigns within the breast of the philosopher, gets the better of common sense.

By contrast, a sign that a philosopher has in fact put his finger on what is primary, is that he does not force us to do violence to those givens from which philosophical questions originally arise. That is to say, when he's through with you, or when you're through with him, you find the world pretty much as it was beforehand. You understand it more deeply, but none of those ordinary facts about the world which gave rise to your philosophic wonder in the first place must now be purged. He leaves the world as he found it. That's perhaps the best sign for the beginner, or the man who has progressed in some measure but not too far, that he's on the right track and being the disciple of a given philosopher. He finds that in his choice, or in his judgment (it's not really a matter of choice) of what is primary, what we bring to philosophy as the basis for our wonder is still there.

# Fourth Example: Natural Selection

I'd like to close with a particular contemporary example that bothered me for years. Finally, I found a way of coming to terms with it. I may be wrong, but I offer it for what it's worth. Some years ago, we had a distinguished biologist lecturing on campus, a paleontologist, a student of fossil remains. In the question period, we were all shocked, myself more than most, to discover that he put in question, even denied the meaningfulness of the distinction between the higher and the lower animals. I guess I thought a biologist might say that, but when you here it in the flesh, alive, you are horrified. Why would anybody say such a thing? I don't know whether this man was a vegetarian, but I assume he wasn't, and yet I'm sure he enjoys a lamb-chop as much as I do. It occurred to me that it might have occurred to him at some point in his reasoning that eating a lamb-chop in good conscience presupposes that you recognize that distinction. Not that the fact that we are higher animals than the lamb in and of itself justifies such procedures, but if we are not higher animals, we simply couldn't justify them. If the lamb is simply our brother lamb, and nothing more, if that's the limit of what we can say about it, one could hardly eat a lamb-chop in good conscience.

It seemed to me that the gentleman in question, who was a very congenial man, older than I am, and not at all looking for a fight, must be living a double life: the life he lived as a biologist in terms of which there were no higher animals, and the life he lived when he went home at night, and ate dinner, where indeed there were higher animals, or when he kicked his dog, and indeed there were higher animals. I suppose the way we're going, we're going to have a plants' rights' league one of these years--it seems just about as logical. But then, in trying to understand why he would say that, I thought "Maybe its just the custom. Maybe if you have

a certain kind of formation, it focuses your attention constantly upon things that don't reveal that difference to you. Therefore, when you are doing biology, you treat that distinction as unreal".

I think that's part of the truth, but I don't think it's the whole truth. What occurred to me subsequently is this: this philosopher, this biologist, was an evolutionist. He believed in the evolution of what we would call the higher forms of life from the lower. But the central assumption, the central explanatory factor in evolutionary philosophy is natural selection. Now natural selection is a principle that explains not the origination of anything, but the survival of what is originated. It won't tell you why any particular kind of thing that didn't exist before might come into being in the first place. Rather, it explains why, having come into being, it will survive, reproduce, prosper, have great numbers.

Now to the extent that natural selection is the principle that you think explains all things, then you no longer have any basis for maintaining or explaining that some animals are higher than others. You're driven almost inevitably to conclude that all animals are fundamentally of one kind, and maybe even of one kind with the plants, and perhaps even that the living is of one kind with the nonliving. It's hard to see where the logic of that particular line would end.

And so I thought that insofar as he had adopted natural selection as his primary and fundamental principle of explanation, he had to regard all things that have existed from the beginning of the world till now, as being fundamentally of one kind, because given that as the primary principle of explanation, they couldn't be otherwise. Then I thought I'd understood his position better than I had at first. I didn't just sit there and feel a sense of alienation and horror, but I felt that I had some understanding of why he said what he said, and not an understanding that just went back to something peculiar and perverse in him as an individual, because such peculiarities are of no interest or profit to a philosopher. Rather, they went back to some view that he had about what was primary, and that view went back not to some peculiarity in Darwin, but to something within the things themselves that supports such a view. Not proves it, but supports it.

Thus one sees philosophical disagreement not as a result simply of things not being the way they ought to be, of people failing in their task, and thinking things they shouldn't think, but of a character of the things themselves, and of our intellect as it compares to those things. As Aristotle says in the *Physics*, when he's inquiring into the nature of place, "The relevant facts about place seem to lead to contrary conclusions". The blame was not in the perversity of the philosophers, but in something about the things themselves and the way they relate to our intellect. Because of the difficulty that is presented by the things themselves, and our natural weakness as human intellects relative to those things, we adopt different views. But not different views about the obvious, about the fact. Maybe we do, but those views, if they are original, may be dismissed. Where we find the philosophical disagreements that are significant and profitable is where we attempt to go beyond the given facts of experience and find an explanation, and see what comes first in all the things we might think about. It's then that we're being philosophers, it's then that we succeed or fail. But even when we fail, we give to other philosophers the means to perfect their own understanding. That's all.